STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION

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NEWINGTON, CONNECTICUT 06131-7546

Phone: 860-594-3128

September 3, 2015

Subject: Project No. 135-326
Replacement of MNRR Bridge over Atlantic Street-Phase 1 I-95 NB Exit 8 Ramp Bridge.

NOTICE TO CONTRACTORS:

This is to notify all concerned and especially the prospective bidders that the bid opening for the subject project is still scheduled for September 30, 2015 at 2:00 P.M. in the Conference Room of the Department of Transportation Administration Building, 2800 Berlin Turnpike, Newington, Connecticut.

Addendum No. 1 is attached and can also be obtained on the Statewide Contracting Portal at http://www.biznet.ct.gov/scp_search/BidResults.aspx?groupid=64

This addendum is necessary to add new special provisions, revise special provisions, delete special provisions, add new contract items, revise contract items, add new plan sheets and delete plan sheets.

Bid Proposal Forms (0135-0326.EBS file and amendment file 0104-0164.00# if applicable) are available for those bidders that have received approval from the Department to bid on the subject project.

Pre-Bid Questions and Answers: Questions pertaining to DOT advertised construction projects must be presented through the CTDOT Pre-Bid Q and A Website. The Department cannot guarantee that all questions will be answered prior to the bid date. **PLEASE NOTE - at 12:01 am, the day before the bid, the subject project(s) being bid will be removed from the Q and A Website, Projects Advertised Section, at which time questions can no longer be submitted through the Q and A Website. At this time, the Q and A for those projects will be considered final, unless otherwise stated and/or the bid is postponed to a future date and time to allow for further questions and answers to be posted.**

Harold J. Emond
For: Gregory D. Straka
Contracts Manager
Division of Contracts Administration

SEPTEMBER 1, 2015
REPLACEMENT OF MNRR BRIDGE OVER ATLANTIC STREET – PHASE 1
I-95 NB EXIT 8 RAMP BRIDGE

STATE PROJECT NO. 135-326
TOWN OF STAMFORD

ADDENDUM NO. 1

SPECIAL PROVISIONS

NEW SPECIAL PROVISIONS

The following Special Provisions are hereby added to the Contract:

- ITEM NO. 0101000A – ENVIRONMENTAL HEALTH AND SAFETY
- ITEM NO. 0101117A – CONTROLLED MATERIAL HANDLING
- ITEM NO. 0101128A – SECURING, CONSTRUCTION, AND DISMANTLING OF WASTE STOCKPILE AND TREATMENT AREA
- ITEM NO. 0101175A – PCB WASTE HANDLING
- ITEM NO. 0101176A – DISPOSAL OF PCB WASTE
- ITEM NO. 0202315A – DISPOSAL OF CONTROLLED MATERIALS
- ITEM NO. 0202318A – MANAGEMENT OF REUSABLE CONTROLLED MATERIAL
- ITEM NO. 0204213A – HANDLING CONTAMINATED GROUNDWATER
- ITEM NO. 1204247A – REVISION OF LEGEND

REVISED SPECIAL PROVISION

The following Special Provision is hereby deleted in its entirety and replaced with the attached like-named Special Provision:

- NOTICE TO CONTRACTOR – ENVIRONMENTAL INVESTIGATIONS

DELETED SPECIAL PROVISIONS

The following Special Provisions are hereby deleted in their entirety:

- ITEM NO. 0921001A – CONCRETE SIDEWALK
- ITEM NO. 0921005A – CONCRETE SIDEWALK RAMP
- ITEM NO. 0921039A – DETECTABLE WARNING STRIP

CONTRACT ITEMS

NEW CONTRACT ITEMS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
0101000A	ENVIRONMENTAL HEALTH AND SAFETY	L.S.	L.S.
0101117A	CONTROLLED MATERIAL HANDLING	CY	12,880
0101128A	SECURING, CONSTRUCTION, AND DISMANTLING OF WASTE STOCKPILE AND TREATMENT AREA	L.S.	L.S.
0101175A	PCB WASTE HANDLING	CY	517
0101176A	DISPOSAL OF PCB WASTE	TON	776
0202315A	DISPOSAL OF CONTROLLED MATERIALS	TON	8,610
0202318A	MANAGEMENT OF REUSABLE CONTROLLED MATERIAL	CY	500
0204213A	HANDLING CONTAMINATED GROUNDWATER	L.S.	L.S.
1204247A	REVISION OF LEGEND	EA	4

REVISED CONTRACT ITEMS

ITEM NO.	DESCRIPTION	ORIGINAL QUANTITY	REVISED QUANTITY
0601201	CLASS “F” CONCRETE	249 CY	254 CY
0602006	DEFORMED STEEL BARS – EPOXY COATED	50,040 LB	50,490 LB
1008217	3” RIGID METAL CONDUIT	491 LF	621 LF

PLANS

NEW PLANS

The following Plan Sheets are hereby added to the Contract:

03.012-1.A1, 03.012-2.A1, 03.012-3.A1, 03.012-4.A1, 03.012-5.A1, 04.008-1.A1, 12.050-1.A1, 18.001.A1. 18.002.A1, 18.003.A1, 18.004.A1, 18.005.A1, 18.006.A1, 18.007.A1, 18.008.A1, 18.009.A1, and 18.010.A1

REVISED PLANS

The following Plan Sheets are hereby deleted and replaced with the like-numbered Plan Sheets:

03.008.A1, 03.032.A1, 12.001.A1, 12.002.A1, 12.031.A1, and 12.048.A1

DELETED PLANS

The following Plan Sheets are hereby deleted in their entirety:

03.012, 04.008, 13.000, 13.001, 13002, 13.003, 13004, 13.005, 13.006, 13.007, and 13.008

The Detailed Estimate Sheets do not reflect these changes.

The Bid Proposal Form has been revised to reflect these changes.

There will be no change in the number of calendar days due to this Addendum.

The foregoing is hereby made a part of the contract.

ITEM # 0101000A - ENVIRONMENTAL HEALTH AND SAFETY

Description:

Under this item, the Contractor shall establish protocols and provide procedures to protect the health and safety of its employees and subcontractors as related to the proposed construction activities performed within the Project limits. Work under this Item consists of the development and implementation of a HASP that addresses the relative risk of exposure to potential hazards present within the Project limits. The HASP shall establish health and safety protocols that address the relative risk of exposure to regulated substances in accordance with 29 CFR 1910.120 and 29 CFR 1926.65. Such protocols shall only address those potential concerns directly related to site conditions.

Note: The Engineer will prepare a site-specific HASP, which is compatible with the Contractor's HASP, and will be responsible for the health and safety of all Project Inspectors, Department employees and consulting engineers.

Materials:

The Contractor must provide chemical protective clothing (CPC) and personal protective equipment (PPE) as stipulated in the Contractor's HASP during the performance of work in areas identified as potentially posing a risk to worker health and safety for workers employed by the Contractor and all subcontractors.

Construction Methods:

1. Existing Information

   The Contractor shall utilize all available information and existing records and data pertaining to chemical and physical hazards associated with any of the regulated substances identified in the environmental site investigation to develop the HASP. The documents containing this data are referenced in "Notice to Contractor – Environmental Investigations." Note that as indicated in the Notice to Contractor for this project, the chemical data obtained at this site indicates impacts to soil or groundwater within the Project limits and may also represent soil impacts surrounding the USTs subject for removal.

2. General

   The requirements set forth herein pertain to the provision of workers' health and safety as it relates to proposed Project activities when performed in the presence of hazardous or regulated materials or otherwise environmentally sensitive conditions. THE PROVISION OF WORKER HEALTH AND SAFETY PROTOCOLS WHICH ADDRESS POTENTIAL AND/OR ACTUAL RISK OF EXPOSURE TO SITE SPECIFIC HAZARDS POSED TO

CONTRACTOR EMPLOYEES IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

The Contractor shall be responsible for the development, implementation and oversight of the HASP throughout the performance of work within the limits of the Project, as identified in the Contract Documents, and in other areas identified by the Engineer or by the HASP where site conditions may pose a risk to worker health and safety and/or the environment. **No physical aspects of the work on the Project shall begin until the HASP is reviewed by the Engineer and is determined to meet the requirements of the specifications. However, the Contract time, in accordance with Article 1.03.08, will begin on the date stipulated in the Notice to Proceed.**

3. Regulatory Requirements

All construction related activities performed by the Contractor within the limits of the Project or in other areas where site conditions may pose a risk to worker health and safety and/or the environment shall be performed in conformance with 29 CFR 1926, Safety and Health Regulations for Construction and 29 CFR 1910, Safety and Health Regulations for General Industry. Conformance to 29 CFR 1910.120, Hazardous Waste Site Operations and Emergency Response (HAZWOPER) may also be required, where appropriate.

4. Submittals

Three copies of the HASP shall be submitted to the Engineer within four (4) weeks after the Award of Contract or four (4) weeks prior to the start of any work on the Project, whichever is first, but not before the Award of the Contract.

The HASP shall be developed by a qualified person designated by the Contractor. This qualified person shall be a Certified Industrial Hygienist (CIH), Certified Hazardous Material Manager (CHMM), or a Certified Safety Professional (CSP). He/she shall have review and approval authority over the HASP and be identified as the Health and Safety Manager (HSM). The HASP shall bear the signature of said HSM indicating that the HASP meets the minimum requirements of 29 CFR 1910.120 and 29 CFR 1926.65.

The Engineer will review the HASP within four (4) weeks of submittal and provide written comments as to deficiencies in and/or exceptions to the plan, if any, to assure consistency with the specifications, applicable standards, policies and practices and appropriateness given potential or known site conditions. Items identified in the HASP which do not conform to the specifications will be brought to the attention of the Contractor, and the Contractor shall revise the HASP to correct the deficiencies and resubmit it to the Engineer for determination of compliance with this item. The Contractor shall not be allowed to commence work activities on the Project, as shown on the Plans, or where site conditions exist which may pose a risk to worker health and safety and/or the environment, until the HASP has been reviewed and accepted by the Engineer. **No claim for delay in the progress of work will be**

considered for the Contractor's failure to submit a HASP that conforms to the requirements of the Contract.

5. HASP Provisions

1. General Requirements

The Contractor shall prepare a HASP covering all Project site work regulated by 29 CFR 1910.120(b)/1926.65(b) to be performed by the Contractor and all subcontractors under this Contract. The HASP shall establish in detail, the protocols necessary for the recognition, evaluation, and control of all hazards associated with each task performed under this Contract. The HASP shall address site-specific safety and health hazards of each phase of site operation and include the requirements and procedures for employee protection. The level of detail provided in the HASP shall be tailored to the type of work, complexity of operations to be performed, and hazards anticipated. Details about some activities may not be available when the initial HASP is prepared and submitted. Therefore, the HASP shall address, in as much detail as possible, all anticipated tasks, their related hazards and anticipated control measures.

The HASP shall interface with the Contractor's Safety and Health Program. Any portions of the Safety and Health Program that are referenced in the HASP shall be included as appendices to the HASP. All topics regulated by the 29 CFR 1910.120(b)(4) and those listed below shall be addressed in the HASP. Where the use of a specific topic is not applicable to the Project, the HASP shall include a statement to justify its omission or reduced level of detail and establish that adequate consideration was given the topic.

2. Elements

a. Site Description and Contamination Characterization

The Contractor shall provide a site description and contaminant characterization in the HASP that meets the requirements of 29 CFR 1910.120/1926.65.

b. Safety and Health Risk Analysis/Activity Hazard Analysis

The HASP shall address the safety and health hazards on this site for every operation to be performed. The Contractor shall review existing records and data to identify potential chemical and physical hazards associated with the site and shall evaluate their impact on field operations. Sources, concentrations (if known), potential exposure pathways, and other factors as noted in CFR 1910.120/126.65, paragraph (c)(7) employed to assess risk shall be described. The Contractor shall develop and justify action levels for implementation of engineering controls and PPE upgrades and downgrades for controlling worker exposure to the identified hazards. If there is no permissible exposure limit (PEL) or published exposure level for an identified

hazard, available information from other published studies may be used as guidance. Any modification of an established PEL must be fully documented.

The HASP shall include a comprehensive section that discusses the tasks and objectives of the site operations and logistics and resources required to complete each task. The hazards associated with each task shall be identified. Hazard prevention techniques, procedures and/or equipment shall be identified to mitigate each of the hazards identified.

c. Staff Organization, Qualifications and Responsibilities

The HASP shall include a list of personnel expected to be engaged in site activities and certify that said personnel have completed the educational requirements stipulated in 29 CFR 1910.120 and 29 CFR 1926.65, are currently monitored under a medical surveillance program in compliance with those regulations, and that they are fit for work under "Level C" conditions.

The Contractor shall assign responsibilities for safety activities and procedures. An outline or flow chart of the safety chain of command shall be provided in the HASP. Qualifications, including education, experience, certifications, and training in safety and health for all personnel engaged in safety and health functions shall be documented in the HASP. Specific duties of each on-site team member should be identified. Typical team members include but are not limited to Team Leader, Scientific Advisor, Site Safety Officer, Public Information Officer, Security Officer, Record Keeper, Financial Officer, Field Team Leader, and Field Team members.

The HASP shall also include the name and qualifications of the individual proposed to serve as Health and Safety Officer (HSO). The HSO shall have full authority to carry out and ensure compliance with the HASP. The Contractor shall provide a competent HSO onsite who is capable of identifying existing and potential hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees and who has authorization to take prompt corrective measures to eliminate or control them. The qualifications of the HSO shall include completion of OSHA 40-hour HAZWOPER training, including current 8-hour refresher training, and 8-hour HAZWOPER supervisory training; a minimum of one year of working experience with the regulated compounds that have been documented to exist within Project limits; a working knowledge of federal and state safety regulations; specialized training or documented experience (one year minimum) in personal and respiratory protective equipment program implementation; the proper use of air monitoring instruments, air sampling methods and procedures; and certification training in first aid and CPR by a recognized, approved organization such as the American Red Cross.

The primary duties of the HSO shall be those associated with worker health and safety. The Contractor's HSO responsibilities shall be detailed in the written HASP and shall include, but not be limited to the following:

i. Directing and implementing the HASP.

ii. Ensuring that all Project personnel have been adequately trained in the recognition and avoidance of unsafe conditions and the regulations applicable to the work environment to control or eliminate any hazards or other exposure to illness or injury (29 CFR 1926.21). All personnel shall be adequately trained in procedures outlined in the Contractor's written HASP.

iii. Authorizing Stop Work Orders, which shall be executed upon the determination of an imminent health and safety concern.

iv. Contacting the Contractor's HSM and the Engineer immediately upon the issuance of a Stop Work order when the HSO has made the determination of an imminent health and safety concern.

v. Authorizing work to resume, upon approval from the Contractor's HSM.

vi. Directing activities, as defined in the Contractor's written HASP, during emergency situations; and

vii. Providing personal monitoring where applicable, and as identified in the HASP.

d. Employee Training Assignments

The Contractor shall develop a training program to inform employees, supplier's representatives, and official visitors of the special hazards and procedures (including PPE, its uses and inspections) to control these hazards during field operations. Official visitors include but are not limited to, Federal Agency Representatives, State Agency Representatives, Municipal Agency Representatives, Contractors, subcontractors, etc. This program shall be consistent with the requirements of 29 CFR 1910.120 and 29 CFR 1926.65.

e. Personal Protective Equipment

The plan shall include the requirements and procedures for employee protection and should include a detailed section on respiratory protection. The Contractor shall describe in detail and provide appropriate PPE to insure that workers are not exposed to levels greater than the action level for identified hazards for each operation stated for each work zone. The level of protection shall be specific for each operation and shall be in compliance with all requirements of 29 CFR 1910 and 29 CFR 1926. The Contractor shall provide, maintain, and properly dispose of all PPE.

f. Medical Surveillance Program

All on-site Contractor personnel engaged in 29 CFR 1910.120/1926.65 operations shall have medical examinations meeting the requirements of 29 CFR 1910.120(f) prior to commencement of work.

The HASP shall include certification of medical evaluation and clearance by the physician for each employee engaged in 29 CFR 1910.120/1926.65 operations at the site.

g. Exposure Monitoring / Air Sampling Program

The Contractor shall submit an Air Monitoring Plan as part of the HASP, which is consistent with 29 CFR 1910.120, paragraphs (b)(4)(ii)(E), (c)(6), and (h). The Contractor shall identify specific air sampling equipment, locations, and frequencies in the air-monitoring plan. Air and exposure monitoring requirements shall be specified in the Contractor's HASP. The Contractor's CIH shall specify exposure monitoring/air sampling requirements after a careful review of the contaminants of concern and planned site activities.

h. Site Layout and Control

The HASP shall include a map, work zone delineation (support, contamination, reduction and exclusion), on/off-site communications, site access controls, and security (physical and procedural).

i. Communications

Written procedures for routine and emergency communications procedures shall be included in the Contractor's HASP.

j. Personal Hygiene, Personal Decontamination and Equipment Decontamination

Decontamination facilities and procedures for PPE, sampling equipment, and heavy equipment shall be discussed in detail in the HASP.

k. Emergency Equipment and First Aid Requirements

The Contractor shall provide appropriate emergency first aid kits and equipment suitable to treat exposure to the hazards identified, including chemical agents. The Contractor will provide personnel that have certified first aid/CPR training onsite at all times during site operations.

l. Emergency Response Plan and Spill Containment Program

The Contractor shall establish procedures in order to take emergency action in the event of immediate hazards (i.e., a chemical agent leak or spill, fire or personal injury). Personnel and facilities supplying support in emergency procedures will be identified. The emergency equipment to be present on-site and the Emergency Response Plan procedures, as required 29 CFR 1910.120, paragraph (1)(1)(ii) shall be specified in the Emergency Response Plan. The Emergency Response Plan shall be included as part of the HASP. This Emergency Response Plan shall include written directions to the closest hospital as well as a map showing the route to the hospital.

m. Logs, Reports and Record Keeping

The Contractor shall maintain safety inspections, logs, and reports, accident/incident reports, medical certifications, training logs, monitoring results, etc. All exposure and medical monitoring records are to be maintained according to 29 CFR 1910 and 29 CFR 1926. The format of these logs and reports shall be developed by the Contractor to include training logs, daily logs, weekly reports, safety meetings, medical surveillance records, and a phase-out report. These logs, records, and reports shall be maintained by the Contractor and be made available to the Engineer.

The Contractor shall immediately notify the Engineer of any accident/incident. Within two working days of any reportable accident, the Contractor shall complete and submit to the Engineer an accident report.

n. Confined Space Entry Procedures

Confined space entry procedures, both permit required and non permit required, shall be discussed in detail.

o. Pre-Entry Briefings

The HASP shall provide for pre-entry briefings to be held prior to initiating any site activity and at such other times as necessary to ensure that employees are apprised of the HASP and that this plan in being followed.

p. Inspections/Audits

The HSM or HSO shall conduct Inspections or audits to determine the effectiveness of the HASP. The Contractor shall correct any deficiencies in the effectiveness of the HASP.

6. HASP Implementation

   The Contractor shall implement and maintain the HASP throughout the performance of work. In areas identified as having a potential risk to worker health and safety, and in any other areas deemed appropriate by the HSO, the Contractor shall be prepared to immediately implement the appropriate health and safety measures, including but not limited to the use of PPE, and engineering and administrative controls.

   If the Engineer observes deficiencies in the Contractor's operations with respect to the HASP, they shall be assembled in a written field directive and given to the Contractor. The Contractor shall immediately correct the deficiencies and respond, in writing, as to how each was corrected. Failure to bring the work area(s) and implementation procedures into compliance will result in a Stop Work Order and a written directive to discuss an appropriate resolution(s) to the matter. When the Contractor demonstrates compliance, the Engineer shall remove the Stop Work Order. If a Stop Work Order has been issued for cause, no delay claims on the part of the Contractor will be honored.

   Disposable CPC/PPE (i.e. disposable coveralls, gloves, etc.) which come in direct contact with hazardous or potentially hazardous material shall be placed into 55 gallon USDOT 17-H drums and disposed of in accordance with federal, state, and local regulations. The drums shall be temporarily staged and secured within the WSA until the material is appropriately disposed.

7. HASP Revisions

   The HASP shall be maintained onsite by the Contractor and shall be kept current with construction activities and site conditions under this Contract. The HASP shall be recognized as a flexible document which shall be subject to revisions and amendments, as required, in response to actual site conditions, changes in work methods and/or alterations in the relative risk present. All changes and modifications shall be signed by the Contractor's HSM and shall require the review and acceptance by the Engineer prior to the implementation of such changes.

   Should any unforeseen hazard become evident during the performance of the work, the HSO shall bring such hazard to the attention of the Contractor and the Engineer as soon as possible. In the interim, the Contractor shall take action, including Stop Work Orders and/or upgrading PPE as necessary to re-establish and maintain safe working conditions and to safeguard on-site personnel, visitors, the public and the environment. The HASP shall then be revised/amended to reflect the changed condition.

Method of Measurement:

1. Within thirty (30) calendar days of the award of the Contract, the Contractor shall submit to the Engineer for acceptance a breakdown of its lump sum bid price for this item detailing:

a) The development costs associated with preparing the HASP in accordance with these Specifications.

b) The cost per month for the duration of the Project to implement the HASP and provide the services of the HSM and the HSO.

2. If the lump sum bid price breakdown is unacceptable to the Engineer, substantiation showing that the submitted costs are reasonable shall be required.

3. Upon acceptance of the payment schedule by the Engineer, payments for work performed will be made as follows:

a) The lump sum development cost will be certified for payment.

b) The Contractor shall demonstrate to the Engineer monthly that the HASP has been kept current and is being implemented and the monthly cost will be certified for payment.

c) Any month where the HASP is found not to be current or is not being implemented, the monthly payment for the Environmental Health and Safety Item shall be deferred to the next monthly payment estimate. If the HASP is not current or being implemented for more than thirty calendar days, there will be no monthly payment.

d) Failure of the Contractor to implement the HASP in accordance with this Specification shall result in the withholding of all Contract payments.

Basis of Payment:

This work will be paid for at the Contract lump sum price for "ENVIRONMENTAL HEALTH AND SAFETY" which shall include all materials, tools, equipment and labor incidental to the completion of this item for the duration of the Project to maintain, revise, monitor and implement the HASP. Such costs include providing the services of the HSM and HSO, Contractor employee training, CPC, PPE, disposal of PPE and CPC, medical surveillance, decontamination facilities, engineering controls, monitoring and all other HASP protocols and procedures established to protect the Health and Safety for all on-site workers.

Pay Item	Pay Unit
Environmental Health and Safety	Lump Sum

ITEM NO. 101117A - CONTROLLED MATERIALS HANDLING

Description:

Work under this Item is intended to provide specific procedural requirements to be followed by the Contractor during the excavation of controlled materials from within any AOEC or LLAOEC, as shown on the Project Plans. This supplements all Specification Items that involve excavation and Contract Special Provisions for excavation wherever contaminated materials are encountered. (Note that Control Materials handling associated with PCB AOECs are addressed separately under Special Provision 0101175A). Work under this item shall include transporting and stockpiling materials at the WSA, and covering, securing, and maintaining the stockpiled materials throughout the duration of the Project. All materials, excluding the existing pavement structure (asphalt and subbase), rocks larger than 6", ledge, miscellaneous debris, utilities, structures, and concrete, excavated within AOECs are to be considered controlled materials. All surplus excavated material within LLAOECs that cannot be reused within the Project limits shall be considered controlled materials. If the vertical limits of the existing subbase cannot be determined visually, subbase will be presumed to exist 12" below the bottom of existing pavement.

Controlled materials consisting of non-hazardous levels of regulated substances have been documented to exist within the Project limits. Such contamination is documented in the reports listed in the "Notice to Contractor – Environmental Investigations". Where contaminated soils are excavated, special handling, disposal and documentation procedures will be required. Controlled Materials excavated within AOEC may be reused as fill/backfill within the AOEC from which it was excavated. Excess or unsuitable Controlled Material that cannot be reused within the Project must be transported to and stockpiled in the WSA, sampled by the Engineer, and transported off-site for disposal.

Materials:

The required materials are detailed on the Project Plans. All materials shall conform to the requirements of the Contract.

Plastic Sheet: Polyethylene plastic sheeting for underlayment shall be at least 30 mil thick. Polyethylene plastic sheeting for covering excavated material shall be a thickness of 10 mil. Both shall be at least 10 feet wide.

Covers for roll-off/storage containers shall be made of polyethylene plastic, or similar water-tight material, that is of sufficient size to completely cover top opening and can be securely fastened to the container.

Sand Bags: Sandbags used to secure polyethylene covers shall be at least 30 pounds.

Sorbent Boom: Shall be 8 inches in diameter and 10 feet long and possess petrophilic and hydrophilic properties. Sorbent booms shall also have devices (i.e. clips, clasps, etc.) for connection to additional lengths of boom.

Construction Methods:

A. General

When controlled materials are encountered during the course of the work, health and safety provisions shall conform to the appropriate sections of the Contract. Provisions may include implementation of engineering controls, air and personal monitoring, the use of chemical protective clothing (CPC), personal protective equipment (PPE), implementation of engineering controls, air and personal monitoring, and decontamination procedures.

Excavated material from the AOECs, if suitable, may be reused within the AOEC from which it was excavated, in accordance with the following conditions: (1) such soil is deemed to be structurally suitable as fill by the Engineer; (2) such soil is not placed below the water table; (3) the CT DEEP groundwater classification of the area where the soil is to be reused as fill does not preclude said use; and (4) such soil is not placed in an area subject to erosion. Materials removed from any excavation within an AOEC which cannot be immediately reused within the same AOEC shall be transported directly from their point of origin on the Project to the WSA. The stockpiles of excavated controlled materials shall be maintained as shown on the Project Plans. The Contractor shall plan excavation activities within AOEC(s) in consideration of the capacity of WSA, and the material testing and disposal requirements of the applicable Contract item. **No claims for delay shall be considered based on the Contractor's failure to coordinate excavation activities as specified herein.**

The Engineer will sample the stockpiled controlled materials at a frequency and for the constituents to meet the acceptance criteria of the treatment/recycling/disposal facilities submitted by the Contractor. The Contractor is hereby notified that laboratory turnaround time is expected to be fifteen (15) working days. Turnaround time is the period of time beginning when the Contractor notifies the Engineer which facility it intends to use and that the stockpile is ready for sampling and ending with the Contractor's receipt of the laboratory analytical results. Any change of intended treatment/recycling/disposal facility may prompt the need to resample and will therefore restart the time required for laboratory turnaround. The laboratory will furnish such results to the Engineer. Upon receipt, the Engineer will make available to the Contractor the results of the final waste characterization determinations. **No delay claim will be considered based upon the Contractor's failure to accommodate the laboratory turnaround time as identified above.**

B. Transportation and Stockpiling

In addition to following all pertinent Federal, State and local laws or regulatory agency policies, the Contractor shall adhere to the following precautions during transport of non-hazardous materials:

- Transported controlled materials are to be covered prior to leaving the point of generation and are to remain covered until the arrival at the WSA;

- All vehicles departing the site are properly logged to show the vehicle identification, driver's name, time of departure, destination, and approximate volume and content of materials carried;

- All vehicles shall have secure, watertight containers free of defects for material transportation;

- No material shall leave the site until there is adequate lay down area prepared in the WSA; and,

- Documentation must be maintained indicating that all applicable laws have been satisfied and that the materials have been successfully transported and received at the WSA.

Construction of the WSA shall be completed prior to the initiation of construction activities generating Controlled Materials. Plastic polyethylene sheeting shall underlay all excavated controlled materials not stockpiled on a paved surface. Measures shall be implemented to divert rainfall away from the WSA.

No controlled materials shall be excavated or transported to the WSA until registration under the General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer) has been obtained by ConnDOT.

Placement of sorbent boom along the perimeter of the WSA shall be conducted when soil is saturated with petroleum product.

Excavated materials shall be staged as shown on the Project Plans or as directed by the Engineer.

C. WSA Maintenance

The Contractor shall provide all necessary materials, equipment, tools and labor for anticipated activities within the WSA. Such activities include, but are not limited to, handling and management of stockpiles and drummed CPC/PPE; uncovering and recovering stockpiles; maintenance of WSA; replacement of damaged components (i.e. sand bags, plastic polyethylene sheeting, etc.); and waste inventory record management. The Contractor shall manage all materials in the WSA in such a way as to minimize tracking of potential contaminated materials across the site and off-site, and minimize dust generation.

Each stockpile shall be securely covered when not in active use with a cover of sufficient size to prevent generation of dust and infiltration of precipitation. The cover shall be to prevent wind erosion.

The staged stockpiles shall be inspected at least daily by the Contractor to ensure that the cover and containment have not been damaged and that there is no apparent leakage from the pile. If the cover has been damaged, or there is evidence of leakage from the piles, the Contractor shall immediately replace the cover or containment as needed to prevent the release of materials to the environment from the piles.

An inventory of stockpiled materials and drummed CPC/PPE shall be conducted on a daily basis. Inventory records shall indicate the approximate volume of material/drums stockpiled per day; the approximate volume of material/drums stockpiled to date; material/drums loaded and transported off-site for disposal; any materials loaded and transported for on-site reuse; and identification of stockpiles relative to their points of generation.

Following the removal of all stockpiled controlled materials, residuals shall be removed from surfaces of the WSA as directed by the Engineer. This operation shall be accomplished using dry methods such as shovels, brooms, mechanical sweepers or a combination thereof. Residuals shall be disposed of as Controlled Materials.

D. Dewatering

Dewatering activities shall conform to Items in pertinent articles of the Contract.

E. Decontamination

All equipment shall be provided to the work site free of contamination. The Engineer may prohibit from the site any equipment that in his opinion has not been thoroughly decontaminated prior to arrival. Any decontamination of the Contractor's equipment prior to arrival at the site shall be at the expense of the Contractor. The Contractor is prohibited from decontaminating equipment on the Project that has not been thoroughly decontaminated prior to arrival.

The Contractor shall furnish labor, materials, tools and equipment for decontamination of all equipment and supplies that are used to handle Controlled Materials. Decontamination shall be conducted at an area designated by the Engineer and may be required prior to equipment and supplies leaving the Project, between stages of the work, or between work in different AOEC's.

Dry decontamination procedures are recommended. Residuals from dry decontamination activities shall be collected and managed as Controlled Materials. If dry methods are unsatisfactory as determined by the Engineer, the Contractor shall modify decontamination procedures as required subject to the Engineer's approval.

F. Dust Control

The Contractor shall implement a fugitive dust suppression program in accordance with the Contract to prevent the off-site migration of particulate matter and/or dust resulting from excavation, loading and operations associated with Controlled Materials. It shall be the

Contractor's responsibility to supervise fugitive dust control measures and to monitor airborne particulate matter. The Contractor shall:

1. Employ reasonable fugitive dust suppression techniques.
2. Visually observe the amounts of particulate and/or fugitive dust generated during the handling of controlled materials. If the apparent amount of fugitive dust and/or particulate matter is not acceptable to the Engineer, the Engineer may direct the Contractor to implement corrective measures at his discretion, including, but not limited to, the following:

    (a) apply water to pavement surfaces
    (b) apply water to equipment and excavation faces; and
    (c) apply water during excavation, loading and dumping.

G. Permit Compliance

The Contractor shall comply with the terms and conditions of the DEEP "General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer)", including the General Operating Conditions and the Specific Operating Conditions, except that the Engineer will conduct all soil/sediment characterization and perform all record keeping. In particular, the Contractor shall:

1. Operate, maintain and repair the WSA in conformance with the requirements of the General Permit.
2. Maintain a communications system capable of summoning fire, police, and/or other emergency service personnel.
3. Prevent unauthorized entry onto the stockpiles by the use of fences, gates, or other natural or artificial barriers.
4. Separate incidental excavation waste to the satisfaction of the receiving facility or to an extent that renders the contaminated soil and/or sediment suitable for its intended reuse.
5. Isolate and temporarily store incidental waste in a safe manner prior to off-site transport to a facility lawfully authorized to accept such waste.
6. Not store more that 100 cubic yards of incidental waste at any one time.
7. Sort, separate and isolate all hazardous waste from contaminated soil and/or sediment.
8. Prevent or minimize the transfer or infiltration of contaminants from the stockpiles to the ground as detailed in "B. Transportation and Stockpiling" above.
9. Securely cover each stockpile of soil as detailed in "C. WSA Maintenance" above.
10. Minimize wind erosion and dust transport as detailed in "F. Dust Control" above.
11. Use anti-tracking measures at the WSA to ensure the vehicles do not track soil from the WSA onto a public roadway at any time.
12. Instruct the transporters of contaminated soil and/or sediment of best management practices for the transportation of such soil (properly covered loads, removing loose material from dump body, etc.).

13. Control all traffic related to the operation of the facility in such a way as to mitigate the queuing of vehicles off-site and excessive or unsafe traffic impact in the area where the facility is located.
14. Ensure that except as allowed in section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies, trucks are not left idling for more than three (3) consecutive minutes.

Method of Measurement:

The work of Controlled Material Handling will be measured for payment by the number of cubic yards of controlled material excavated within the AOEC(s) and stockpiled within the WSA's storage bins for sampling by the Engineer. Material kept in proximity to the site of the excavation and reused as it is generated will not be measured for payment under this item. This measurement shall be in accordance with the actual field measurements of soil in the bin(s) that have been stockpiled, covered, tested and ready for disposal. Excess excavations made by the Contractor beyond the payment limits specified in the Contract will not be measured for payment and the Contractor assumes all costs associated with the appropriate handling, management and disposal of this material.

Equipment decontamination, the collection of residuals, and the collection and disposal of liquids generated during equipment decontamination activities will not be measured separately for payment.

Basis of Payment:

This work shall be paid for at the Contract unit price, which shall include any intermediate handling steps; stockpiling controlled materials at the WSA; covering, securing, and maintaining the individual stockpiles within the WSA throughout the duration of the Project; and all tools, equipment, material and labor incidental to this work.

This price shall also include equipment decontamination; the collection of residuals generated during decontamination and placement of such material in the WSA; and the collection and disposal of liquids generated during equipment decontamination activities.

All materials, labor and equipment associated with compliance with the General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer) will not be measured separately, but will be considered incidental to the item "Controlled Materials Handling".

Securing and construction of the WSA shall be paid for under Item 101128A. Handling and disposal of contaminated groundwater will be paid for under Item 0204213A. Payment for dust control activities shall be made under the appropriate Contract items.

Pay Item	Pay Unit
Controlled Materials Handling	C.Y.

ITEM NO. 101128A - SECURING, CONSTRUCTION AND DISMANTLING OF A WASTE STOCKPILE AND TREATMENT AREA

Description:

Work under this Item shall consist of the securing and construction of the Waste Stockpile Area (WSA) and Temporary Reuse Stockpile Area (TRSA) at the locations designated on the Project Plans and in accordance with the Contract. All controlled and hazardous materials excavated during construction activities shall be stockpiled in the WSA. The WSA shown on the Plans is to be used exclusively for temporary stockpiling of excavated materials from within the project AOEC (and TRSA for surplus LLAOEC material) for determination of disposal classification. Temporary stockpiling of PCB AOEC material is not allowed in the WSA (unless kept containerized as defined in Special Provision 0101175A and approved by the Project Engineer).

Work under this item shall include all new materials necessary to construct the WSA and the repair to, replacement of and /or resetting of damaged components, which is not limited to, construction blocks, damaged asphalt, anti-tracking pad(s), and the proposed chain link fence and gate(s) prior to the abandonment of the WSA."

Materials:

The required materials are detailed on the Project Plans. All materials shall conform to the requirements of the Contract.

Construction blocks shall be solid precast rectangular concrete six feet in length, three in height, and two feet in depth.

Polyethylene plastic sheeting for underlayment shall be a thickness of 30 mil and minimum width of ten feet.

Sand bags used to secure polyethylene sheeting soil covers shall have a minimum weight of thirty pounds.

Bedding sand shall conform to Section 6.51.02 of the Specifications.

Subbase shall conform to Section 2.12 of the Specifications.

Processed Aggregate Base shall conform to Section 3.04 of the Specifications.

Hay bales shall conform to the requirements of Section 2.18 of the Specifications.

HMA shall conform to Section 4.06 of the Special Provisions.

Chain Link Fence with Privacy Screening shall conform to the requirements of Section 9.13 of the Specifications.
24' Chain Link Fence gate with Privacy Screening shall conform to the requirements of Section 9.13 of the Specifications.
Catch Basin and Top shall conform to the requirements of Section 5.07 of the Specifications.

Roll-off/Storage Containers shall be of watertight, steel-body construction, of the size specified and able to handle the storage and subsequent transportation of material to the disposal facility.

Construction Methods:

The WSA/TRSA shall be constructed in accordance with the Contract at the location shown on the Project Plans.

Construction of the WSA/TRSA shall be completed prior to the initiation of construction activities generating Controlled Materials. The Contractor is responsible for the maintenance and protection of all utilities potentially affected during WSA construction. The Contractor shall locate and mark all existing utilities potentially affected prior to initiating WSA construction.

The proposed location of the WSA/TRSA shall be cleared of any debris and vegetation as directed by the Engineer. Any objectionable materials, which may result in damage to the polyethylene sheeting underlayment, shall be removed prior to stockpiling excavated controlled materials.

The Contractor shall comply with the terms and conditions of the DEEP "General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer)", including the General Operating Conditions and the Specific Operating Conditions, except that the Engineer will conduct all soil/sediment characterization and perform all record keeping. In particular, the Contractor shall:

1. Construct and repair the WSA in conformance with the requirements of the General Permit.
2. Prevent unauthorized entry onto the stockpiles by the use of fences, gates, or other natural or artificial barriers.
3. Install anti-tracking measures at the WSA/TRSA to ensure the vehicles do not track soil from the WSA/TRSA onto a public roadway at any time.
4. Post and maintain a sign that is visible from a distance of at least 25' at the WSA identifying the name of the permittee (State of CT, Department of Transportation), the DOT field office phone number, the hours of operation for the WSA, and the phrase, "Temporary Soil Staging Area". Lettering shall be at least one inch (1") high with a minimum overall sign dimension of four (4) feet wide by two (2) feet high. Such sign is only required if the capacity of the WSA is equal to or greater than 1,000 cubic yards. If initially the WSA capacity is less than 1,000 c.y. and the WSA capacity is subsequently increased, the Contractor shall post and maintain the required sign at no additional cost to the State, prior to stockpiling the additional material.

Following the removal of all stockpiled material, the Contractor shall use dry decontamination procedures for all surfaces of the WSA as directed by the Engineer. Residual materials shall be disposed of as Controlled Materials. If the results from dry methods are unsatisfactory to the Engineer, the Contractor shall modify decontamination procedures as required.

The Contractor shall be responsible for the collection and treatment/recycling/disposal of any liquid wastes that may be generated by its decontamination activities in accordance with applicable regulations.

Upon completion of the Project, the Contractor will complete the removal of all residual Controlled Materials and all materials such as polyethylene sheeting and sand bags. Materials shall be disposed of by the Contractor as solid waste in accordance with the Contract and all Federal, State and local regulations. The WSA will remain intact for future DOT use.

Operation and maintenance of the WSA during the project shall be included under Item 101117A "Controlled Material Handling".

Method of Measurement:

This work will be measured for payment at the Lump Sum cost for securing, construction, and abandoning of a WSA.

Basis of Payment:

This work will be paid for at the Contract Lump Sum, which shall include all materials, tools, labor, equipment, permits, and work needed to secure, construct, and decontaminate the WSA, including all clearing, grubbing, grading, excavation, gravel, pavement, fence and gate installations with privacy screening, drainage structures, debris removal, construction blocks, excavation and clean up. The work shall also include site restoration which shall include but not limited to repair, resetting and /or replacement of damaged construction blocks, fences, privacy fence screening, access gates, asphalt, catch basins, etc. prior to the WSA's abandonment. All concrete blocks shall be restored to a vertical/plumb condition.

All materials, labor and equipment associated with compliance with the General Permit for Contaminated Soil and/or Sediment Management (Staging and Transfer) will not be measured separately, but will be considered incidental to the item "Securing, Construction and Dismantling of a Waste Stockpile and Treatment Area".

Pay Item	Pay Unit
Securing, Construction and Dismantling Of a Waste Stockpile and Treatment Area	L.S.

ITEM NO. 0101175A – PCB WASTE HANDLING

Description:

Work under this Item is intended to provide specific procedural requirements to be followed by the Contractor during the excavation of polychlorinated biphenyl-contaminated material (PCB Waste) from within the four (4) PCB Areas of Environmental Concern (PCB AOECs), as shown on the Project Plans. This supplements Specifications Section 2.02, 2.03, 2.05, and 2.06 and Contract Special Provisions for excavation wherever materials contaminated with PCBs in concentrations of 1 part per million (ppm) or greater are encountered. Work under this item shall include direct loading of the PCB Waste into lined roll-off containers or lined dump trailers; and covering, securing, and maintaining the stockpiled materials until transported off site for disposal in accordance with Item 0101176A, "PCB Waste Disposal." All materials excavated within the PCB AOECs are to be considered PCB Waste.

Controlled Materials consisting of regulated levels of PCBs have been documented to exist within the Project. Such contamination is documented in the reports listed in the "Notice to Contractor – Environmental Investigations." Where PCB-contaminated materials are excavated, such soil shall not be reusable as backfill, and shall require special handling, disposal and documentation procedures.

Materials:

The required materials are detailed on the Project Plans. All materials shall conform to the requirements of the Contract.

Lined Roll-Off Containers: Lined roll-off containers shall be of watertight, steel-body construction, of the size specified and able to handle the storage and subsequent transportation of material to the disposal facility.

Polyethylene Liner: Each roll-off container or dump trailer shall be lined with a 6-mil polyethylene liner specially constructed for the roll-off container or dump trailer, prior to loading any PCB Wastes.

Covers for roll-off containers and dump trailers: Each roll-off container or trailer shall be equipped with a cover that shall be made of polyethylene plastic, or similar water-tight material, that is of sufficient size to completely cover the top opening, free of any defects, and can be securely fastened to the container.

Construction Methods:

A. General

When PCB Waste is encountered during the course of the work, health and safety provisions shall conform to the appropriate sections of the Contract. Provisions may include implementation of engineering controls, air and personal monitoring, the use of chemical protective clothing (CPC), personal protective equipment (PPE), and decontamination procedures. CPC or PPE used during work with PCB wastes shall be placed into the containers used for the disposal of PCB wastes after use.

Materials removed from any excavation within a PCB AOEC shall be direct-loaded into lined roll-off containers or lined dump trailers. The lined roll-off containers shall be staged onsite as directed by the Engineer. The excavated PCB Waste may be staged in the lined roll-off containers for up to a maximum of 30 days prior to transport to an approved disposal facility. The lined dump trailers shall be transported directly from the point of generation on the Project to the approved disposal facility, as specified in Item 0101176A, "Disposal of PCB Waste." The Contractor shall plan excavation activities within the PCB AOECs in consideration of storage time limits for the lined roll-off containers, and/or the availability of lined dump trailers or lined-roll-off containers. **No claims for delay shall be considered based on the Contractor's failure to coordinate excavation activities as specified herein.**

B. Transportation and Staging

In addition to following all pertinent federal, state and local laws or regulatory agency policies, the Contractor shall adhere to the following precautions during transport of PCB Waste:

1. Transported PCB Waste shall be covered prior to leaving the point of generation and is to remain covered;

2. All vehicles shall have secure, watertight containers free of defects for material transportation;

3. No material shall leave the point of generation until there is a lined roll-off container or lined dump trailer, constructed and lined as specified, located at the direction of the Engineer.

Excavated PCB Waste shall be direct-loaded and transported offsite in the lined dump trailers or temporarily staged in the lined roll-off containers as directed by the Engineer. The excavated PCB Waste may be staged in the lined roll-off containers for up to a maximum of 30 days prior to transport to an approved disposal facility. The Contractor shall post a sign on each lined roll-off container indicating the date on which PCB wastes were first placed in the container and this date is the start of the 30 day maximum storage period and must be recorded on the waste manifest at the time the roll-off container is removed from the site.

C. Lined Roll-off Containers Maintenance

The Contractor shall provide all necessary materials, equipment, tools and labor for anticipated activities with the lined roll-off/storage containers. Such activities include, but are not limited to, handling and management of stockpiled PCB Waste in the lined roll-off containers and drummed CPC/PPE (if these materials are not placed into the disposal containers); uncovering and recovering the soil stockpile; maintenance of lined roll-off/storage containers; replacement of damaged components (i.e. sand bags, plastic polyethylene sheeting, etc.); and waste inventory record management. The Contractor shall manage all materials in the lined roll-off/storage container in such a way as to minimize tracking of potential contaminated materials across the site and off-site, and minimize dust generation.

The lined roll-off containers shall be securely covered, when not in active use, with a cover of sufficient size to prevent generation of dust and infiltration of precipitation. The cover shall be maintained to prevent wind erosion.

The stockpiled soil shall be inspected at least daily by the Contractor to ensure that the cover and containment have not been damaged and that there is no apparent leakage from the container. If the cover has been damaged, or there is evidence of leakage from the lined roll-off containers, the Contractor shall immediately replace the cover or containment as needed to prevent the release of material to the environment from the stockpiled PCB Waste.

An inventory of stockpiled materials and drummed CPC/PPE shall be conducted on a daily basis. Inventory records shall indicate the approximate volume of material/drums stockpiled per day; the approximate volume of material/drums stockpiled to date; and material/drums loaded and transported off-site for disposal.

D. Dewatering

Dewatering activities are not anticipated. Should dewatering be required, the water shall be containerized and disposed of at the direction of the Engineer.

E. Decontamination

All equipment shall be provided to the work site free of contamination. The Engineer may prohibit from the site any equipment that in his opinion has not been thoroughly decontaminated prior to arrival. Any decontamination of the Contractor's equipment prior to arrival at the site shall be at the expense of the Contractor. The Contractor is prohibited from decontaminating equipment on the Project that has not been thoroughly decontaminated prior to arrival.

The Contractor shall furnish labor, materials, tools and equipment for decontamination of all equipment and supplies that are used to handle PCB Waste. Decontamination shall be conducted at an area designated by the Engineer and shall be required prior to equipment and supplies leaving the Project, between stages of the work, or between work in different AOECs.

Decontamination of equipment shall be done using double wash/rinse procedures. All surfaces that have contacted PCB Wastes shall be scrubbed with a detergent/water solution and then washed clean with potable water. The Contractor shall repeat the process with a detergent/water solution wash and clean water rinse. Decontamination shall be conducted in the decontamination pad in order to collect the detergent/water wash and rinse water. The decontamination water shall then be containerized, and sampled for disposal, in accordance with federal and state regulations. Once the double wash/rinse decontamination procedure is complete, the decontaminated equipment may leave the Project or be used in other areas of the site.

F. Dust Control

The Contractor shall implement a fugitive dust suppression program in accordance with the Contract to prevent the off-site migration of particulate matter and/or dust resulting from excavation, loading and operations associated with PCB Waste. It shall be the Contractor's responsibility to supervise fugitive dust control measures and to monitor airborne particulate matter. The Contractor shall:

1. Employ reasonable fugitive dust suppression techniques.

2. Visually observe the amounts of particulate and/or fugitive dust generated during the handling of PCB Waste. If the apparent amount of fugitive dust and/or particulate matter is not acceptable to the Engineer, the Engineer may direct the Contractor to implement corrective measures at his discretion, including, but not limited to, the following:

    a. Apply water to pavement surfaces;

    b. Apply water to equipment and excavation faces; and

    c. Apply water during excavation, loading and dumping.

Method of Measurement:

The work of "PCB WASTE HANDLING" will be measured for payment by the number of cubic yards of PCB Waste excavated within the PCB AOECs to be transported off-site for disposal. This measurement shall be in accordance with and in addition to the quantity measured for payment of the applicable excavation item in Specification Sections 2.02, 2.03, 2.05, 2.06, or the Contract Special Provisions, as applicable. Excess excavations made by the Contractor beyond the payment limits specified in the Contract will not be measured for payment and the Contractor assumes all costs associated with the appropriate handling, management and disposal of this material.

Equipment decontamination, the collection of residuals, and the collection and disposal of liquids generated during equipment decontamination activities will not be measured separately for payment.

Basis of Payment:

This work will be paid for at the Contract unit price, which shall include all transportation from the excavation site to the roll-off staging area (if used), including any intermediate handling steps; covering, securing, and maintaining the lined-roll-off containers throughout the duration of the Project; and all tools, equipment, material and labor incidental to this work.

This price shall also include equipment decontamination; the collection of residuals generated during decontamination and placement of such material in a lined roll-off container or lined truck trailer; and the collection and disposal of liquids generated during equipment decontamination activities.

Payment for dust control activities shall be made under the appropriate Contract items.

Pay Item	Pay Unit
PCB Waste Handling	C.Y.

ITEM NO. 0101176A - DISPOSAL OF PCB WASTE

Description:

Work under this item shall consist of the loading, transportation and final off-site disposal of polychlorinated biphenyl-contaminated material (PCB Waste), excluding dewatering fluids, that may be generated from various excavations within the PCB Areas of Environmental Concern (PCB AOECs). PCBs in concentrations at or above 1 part per million (ppm) have been documented within the PCB AOECs. In the event that PCBs are detected in concentrations at or above 1 ppm during the disposal characterization under Item 0202315A, "Disposal of Controlled Materials," the transportation and disposal of PCB Waste shall be conducted under this Item. The PCB Waste shall be loaded into lined dump trailers or lined roll-off trailers from the existing temporary waste stockpile area (WSA), transported to, and disposed of at a permitted disposal facility listed herein.

The Contractor must use one or more of the following Department-approved disposal facilities for the disposal of PCB Waste:

Waste Management Model City Facility 1550 Balmer Road Model City, NY 14107 Attn: Patricia Stauffer Phone: (800) 843-3604 Fax: (716) 754-0211	Environmental Quality Company Wayne Disposal Facility 49350 North I-94 Service Drive Belleville, MI 48111 Attn: Debbie Oleskienko Phone: (800) 592-5489 Fax: (800) 592-5329

Construction Methods:

A. Submittals

The Contractor shall submit in writing, within seven (7) days after discovery of PCB concentrations at or above 1 ppm:

1. A letter listing the names of the disposal facilities (from the list above) which the Contractor will use to receive PCB Waste from this Project;

2. A copy of the attached "Disposal Facility Material Acceptance Certification" form from each facility, which shall be signed by an authorized representative of each disposal facility; and

3. A copy of the facility acceptance criteria and facility sampling frequency requirements from each facility.

No facility may be substituted for the one(s) designated in the Contractor's submittal without the Engineer's prior approval. If the material cannot be accepted by any of the Contractor's designated facilities, the Department will supply the Contractor with the name(s) of other acceptable facilities.

Disposal Facility Materials Acceptance Certification

Project Number: 0135-0326

Project Location: Reconstruction of Metro-North Railroad Bridge over Atlantic Street, Stamford, CT

Facility Name_____ Telephone_____

Facility Address_____ Fax_____

_____

_____

The Contractor has supplied the analytical data contained in the report concerning the site investigation performed by the Designer. I have personally reviewed this data and intend to accept the following:

PCB Waste as described in Item 0101176A, "Disposal of PCB Waste" for the subject Project at a cost of $_____ per Ton for disposal and an additional $_____ per Ton for transportation from the Project to the facility (if applicable).

This intent to accept the material will be subject to and dependent upon the facility's subsequent evaluation of waste characterization determination documentation to be provided to the Contractor by the Engineer.

Authorized Facility
Representative_____/_____
Printed/Typed Name Title

_____/_____
Signature Date

Note: The facility shall attach the acceptance criteria and facility sampling frequency requirements to this document.

DO NOT ALTER FORM IN ANY WAY. FORM MUST BE COMPLETED IN ENTIRETY.

B. Material Disposal

The Contractor shall obtain and complete all paperwork necessary to arrange for material disposal (such as disposal facility waste profile sheets). It is solely the Contractor's responsibility to coordinate the disposal of PCB Waste with its selected disposal facility(s). Upon receipt of the final approval from the facility, the Contractor shall arrange for the loading, transport and disposal of the PCB Waste in accordance with all federal and state regulations. **No claim will be considered based on the failure of the Contractor's selected disposal facility(s) to meet the Contractor's production rate or for the Contractor's failure to select sufficient facilities to meet its production rate.**

Disposal characterization sampling of the Controlled Materials will be conducted under Item 0202315A, "Disposal of Controlled Materials." If PCBs are detected at concentrations at or above 1 ppm, the materials will be disposed of as PCB Waste. If additional characterization data for the PCB Waste is required by the disposal facility, the Engineer will sample materials at a frequency established by the selected disposal facilities. The Contractor shall designate to the Engineer which facility it intends to use prior to samples being taken. The Contractor is hereby notified that laboratory turnaround time is expected to be fifteen (15) working days. Turnaround time is the period of time beginning when the Contractor notifies the Engineer which facility it intends to use and that the bin is full and ready for sampling and ending with the Contractor's receipt of the laboratory analytical results. Any change of intended disposal facility may prompt the need to resample and will therefore restart the time required for laboratory turnaround. The laboratory will furnish such results to the Engineer. Upon receipt, the Engineer will make available to the Contractor the results of the final waste characterization determinations. **No delay claim will be considered based upon the Contractor's failure to accommodate the laboratory turnaround time as identified above.**

All manifests or bills of lading to accompany the transportation of the PCB Waste shall be prepared by the Contractor and signed by an authorized Department representative, as Generator, for each truck load of material that leaves the site. The Contractor shall forward the appropriate original copies of all manifests or bills of lading to the Engineer the same day the material leaves the Project.

A load-specific certificate of disposal, signed by the authorized agent representing the disposal facility, shall be obtained by the Contractor and promptly delivered to the Engineer for each load.

C. Material Transportation

In addition to all pertinent federal, state and local laws or regulatory agency polices, the Contractor shall adhere to the following precautions during the transport of PCB Waste off-site:

1. Prior to leaving the site, PCB Waste is to be loaded into lined containers and covered sufficiently to preclude the loss of material during transport and is to remain covered until the arrival at the selected disposal facility.

2. All vehicles departing the site are to be properly logged to show the vehicle identification, driver's name, time of departure, destination, and approximate volume, and contents of materials carried.

3. No materials shall leave the site unless a disposal facility willing to accept all of the material being transported has agreed to accept the type and quantity of waste.

D. Equipment Decontamination

All equipment shall be provided to the work site free of gross contamination. The Engineer may prohibit from the site any equipment that in his opinion has not been thoroughly decontaminated prior to arrival. Any decontamination of the Contractor's equipment prior to arrival at the site shall be at the expense of the Contractor. The Contractor is prohibited from decontaminating equipment on the Project that has not been thoroughly decontaminated prior to arrival.

The Contractor shall furnish labor, materials, tools and equipment for decontamination of all equipment and supplies that are used to handle PCB Waste. Decontamination shall be conducted at an area designated by the Engineer and shall be required prior to equipment and supplies leaving the Project, between stages of the work, and between work in different AOECs.

Decontamination of equipment shall be done using double wash/rinse procedures. All surfaces that have contacted PCB Wastes shall be scrubbed with a detergent/water solution and then rinsed clean with potable water. The Contractor shall repeat the process with a detergent/water solution wash and clean water rinse. Decontamination shall be conducted in the decontamination pad in order to collect the detergent/water wash and rinse water. The decontamination water shall then be containerized, and sampled for disposal, in accordance with federal and state regulations. Once the double wash/rinse decontamination procedure is complete, equipment may leave the Project or be used in other areas of the site.

The Contractor shall be responsible for the collection and disposal of any liquid wastes that may be generated by its decontamination activities in accordance with applicable regulations.

Method of Measurement:

The work of "DISPOSAL OF PCB WASTE" will be measured for payment as the actual net weight in tons of material delivered to the disposal facility. Such determinations shall be made by measuring each hauling vehicle on the certified permanent scales at the disposal facility. Total weight will be the summation of weight bills issued by the facility specific to this Project.

Equipment decontamination, the collection of residuals, and the collection and disposal of liquids generated during equipment decontamination activities will not be measured separately for payment.

Basis of Payment:

This work will be paid for at the Contract unit price, which shall include the loading of PCB Waste into lined dump trailers and transportation from the existing temporary WSA to the disposal facility; the fees paid to the facility for disposal; the preparation of all related paperwork; and all equipment, materials, tools, and labor incidental to this work. **This unit price will be applicable to all of the Contractor-selected disposal facilities and will not change for the duration of the Project.**

This price shall also include equipment decontamination; the collection of solid residuals generated during decontamination and placement of such material into the lined dump trailer; and the collection and disposal of liquids generated during equipment decontamination activities.

Pay Item	Pay Unit
Disposal of PCB Waste	Ton

ITEM NO. 0202315A - DISPOSAL OF CONTROLLED MATERIALS

Description:

Work under this Item shall consist of the transportation and final off-site disposal/recycling/ treatment of Controlled Materials (excluding dewatering fluids) that have been generated from various excavations within the Area of Environmental Concern (AOEC) and surplus material from Low-Level Area of Environmental Concern (LLAOEC) locations that have been determined to be contaminated with regulated substances at non-hazardous levels. This contamination is documented in the report listed in the "Notice to Contractor – Environmental Investigations". The Controlled Materials will be properly characterized by the Engineer and shall be excavated, loaded, transported directly to, and treated/ recycled/disposed of at, a Department-approved permitted treatment/recycle/disposal facility (TDRF) listed herein.

Contractor Take Note: No delay claim will be considered based upon the Contractor's failure to select facility(s) with enough capacity to handle the anticipated volume of Controlled Materials being generated by its activities.

Controlled Materials include:

(1) Soil materials (excluding pavement, concrete, sub-base, structures, utilities, and ledge/boulders) that contain regulated substances at concentrations exceeding numeric criteria in the Connecticut Department of Energy and Environmental Protection (CTDEEP) Remediation Standard Regulations (RSRs); and

(2) Soil materials that contain detectable concentrations of regulated substances that are below numeric criteria in the CTDEEP RSRs, but above typical background concentrations, and which cannot be reused within the Project Limits.

The Contractor must use the following Department-approved Transportation, Disposal, Recycle Facility (TDRFs) for the disposal of non-hazardous materials:

Clean Earth of Carteret 24 Middlesex Avenue Carteret, NJ 07008 (732) 541-8909; Cheryl Coffee	Clean Earth of Philadelphia, Inc. 3201 S. 61 Street Philadelphia, PA 19153 (215) 724-5520; Mike Kelly
Clean Earth of Southeast Pennsylvania, Inc. 7 Steel Road Morrisville, PA 19067 (215) 428-1700; Joe Siravo	Cranston Sanitary Landfill 1690 Pontiac Avenue Cranston, RI 02920 (413) 552-3688; Paul Mahoney

ESMI of New York, LLC 304 Towpath Road Fort Edward, NY 12828 (518) 747-5500; Peter Hansen	ESMI of New Hampshire, LLC 67 International Drive Louden, NH 03307 (518) 747-5500; Peter Hansen
Hazelton Creek Properties, LLC 280 South Church Street Hazelton, PA 18201 (570) 207-2000; Allen Swantek	Northampton Landfill (Solid Waste Solutions, LLC) 170 Glendale Road Florence, MA 01062
Ontario County Landfill 3555 Post Farm Road Stanley, New York 14561 (603) 235-3597; Scott Sampson	Upton Landfill (former) / Upton Site Remediation, LLC Maple Avenue Upton, MA (413) 522-3688 ; Paul Mahoney
Soil Safe, Inc. 378 Route 130 Logan Township Bridgeport, NJ 08085 (410) 872-3990 XT. 1123; Mike Kozak	Waste Management (Chicopee Sanitary Landfill) 161 New Lombard Road Chicopee, MA 01020 (413) 534-8741; Tom Heaton
Ted Ondrick Company, LLC 58 Industrial Road Chicopee, MA 01020 (413) 592-2565; Alan Desrosiers	Waste Management of NH; TLR III Refuse Disposal Facility 90 Rochester Neck Road P.O. Box 7065 Rochester, NY 03839 (603) 330-2170; Ellen Bellio

The above list contains TDRFs which can accept the waste stream generated by this Project in quantities limited by their permits and their operational needs. In addition, some of these TDRFs may become unavailable during the duration of the Project. It is the responsibility of the Contractor to verify that a TDRF will be available and capable of handling the volume as well as the chemical and physical characteristics of soil generated by this Project. As such, the Contractor must factor in such possibilities.

Construction Methods:

A. Submittals

The apparent low bidder shall submit in writing, within 14 days after bid opening the following:

1. A copy of the attached "Disposal Facility Material Acceptance Certification" form from each facility from the list above, which shall be signed by an authorized representative of each TDRF; and

2. A copy of the facility acceptance criteria and facility sampling frequency requirements from the TDRF.

Failure to comply with all of the above requirements may result in the rejection of the bid. If the material cannot be accepted by any of the TDRFs listed above, the Department will supply the Contractor with the name(s) of other acceptable facilities.

Disposal Facility Materials Acceptance Certification

Project Number: 0135-0326

Project Location: Reconstruction of Metro-North Railroad Bridge over Atlantic Street, Stamford, CT

Facility Name: _____ Telephone: _____

Facility Address: _____ Fax: _____

_____

_____

The Contractor has supplied the analytical data contained in the report concerning the site investigation performed by the Designer. I have personally reviewed this data and intend to accept the following Controlled Material as described in Item 0202315A - Disposal of Controlled Materials.

This intent to accept the material will be subject to and dependent upon the facility's subsequent evaluation of waste characterization determination documentation to be provided to the Contractor by the Engineer.

Authorized Facility
Representative_____/_____
Printed/Typed Name Title

_____/_____
Signature Date

Note: The facility shall attach the acceptance criteria and facility sampling frequency requirements to this document.

DO NOT ALTER FORM IN ANY WAY. FORM MUST BE COMPLETED IN ENTIERETY.

B. General

When Controlled Materials are encountered during the course of the work, health and safety provisions shall conform to the appropriate sections of the Contract. Provisions may include implementation of engineering controls, air and personal monitoring, the use of chemical protective clothing (CPC), personal protective equipment (PPE), implementation of engineering controls, and decontamination procedures.

Controlled Materials requiring disposal off-site shall be loaded directly into vehicles for immediate transport to the Contractor selected treatment/recycling/disposal facility(s). Controlled Materials awaiting disposal shall not be stockpiled within the Project limits, unless otherwise directed by the Engineer.

C. Material Disposal

The Engineer shall sample the in-place Controlled Materials prior to the start of any work for waste characterization purposes. The Engineer will provide the Contractor with the waste characterization sampling results.

The Contractor shall obtain and complete all paperwork necessary to arrange for material disposal (such as disposal facility waste profile sheets). It is solely the Contractor's responsibility to coordinate the disposal of Controlled Materials with the selected TDRF(s). Upon receipt of the final approval from the facility, the Contractor shall arrange for the excavation, loading, transport, and treatment/recycling/disposal of the materials in accordance with all Federal and State regulations.

The Contractor shall not begin excavation within the Project AOECs until the selected disposal facility has indicated final approval of the Controlled Material for disposal. No claim will be considered based on the failure of the Contractor's selected TDRF(s) to meet the Contractor's production rate or for the Contractor's failure to select sufficient TDRF(s) to meet its production rate.

Any material processing (removal of woody debris, scrap metal, treated and untreated wood timber, large stone, concrete, polyethylene sheeting or similar material) required by the Contractor's selected facility, will be completed by the Contractor prior to the material leaving the site. It is solely the Contractor's responsibility to meet any such requirements of its facility. Any materials removed shall be disposed of or recycled in a manner acceptable to the Engineer at no additional cost. If creosote treated railroad ties or timbers are removed, they will be disposed of under the Item No. 0101133A – Disposal of Contaminated Railroad Ties, or in accordance with Article 1.04.05 in the absence of such item.

All manifests or bills of lading utilized to accompany the transportation of the material shall be prepared by the Contractor a minimum of 24 hours in advance and signed by an authorized

Department representative, as Generator, for each truckload of material that leaves the site. The Contractor shall forward the appropriate original copies of all manifests or bills of lading to the Engineer the same day the material leaves the Project.

A load-specific certificate of treatment/recycling/disposal, signed by the authorized agent representing the TDRF, shall be obtained by the Contractor and promptly delivered to the Engineer for each load.

D. Dust Control

The Contractor shall implement a fugitive dust suppression program in accordance with the Contract to prevent the off-site migration of particulate matter and/or dust resulting from excavation, loading, and operations associated with Controlled Materials. It shall be the Contractor's responsibility to supervise fugitive dust control measures and to monitor airborne particulate matter. The Contractor shall:

1. Employ reasonable fugitive dust suppression techniques.
2. Visually observe the amounts of particulate and/or fugitive dust generated during the handling of Controlled Materials. If the apparent amount of fugitive dust and/or particulate matter is not acceptable to the Engineer, the Engineer may direct the Contractor to implement corrective measures at his discretion, including, but not limited to, the following:

    (a) apply water to pavement surfaces
    (b) apply water to equipment and excavation faces; and
    (c) apply water during excavation, loading, and dumping.

E. Material Transportation

In addition to all pertinent Federal, State, and local laws or regulatory agency polices, the Contractor shall adhere to the following precautions during the transport of Controlled Materials off-site:

1. Transported Controlled Materials are to be covered sufficiently to preclude the loss of material during transport prior to leaving the site and are to remain covered until the arrival at the selected TDRF;

2. Discharge openings on trucks used for the transportation of Controlled Materials must be securely closed during transportation and load tarpaulins must be deployed. Trucks deemed unacceptable for use by the Engineer shall not be used for the transportation of Controlled Materials;

3. All vehicles departing the Project are to be properly logged to show the vehicle identification, driver's name, time of departure, destination, approximate volume, and contents of materials carried;

4. No materials shall leave the site unless a TDRF willing to accept all of the material being transported has agreed to accept the type and quantity of waste; and

5. Documentation must be maintained indicating that all applicable laws have been satisfied and that materials have been successfully transported to and received at the TDRF.

F. Dewatering

Dewatering activities shall conform to items in pertinent articles of the Contract.

G. Equipment Decontamination

All equipment shall be provided to the work site free of gross contamination. The Engineer may prohibit from the site any equipment that in his opinion has not been thoroughly decontaminated prior to arrival. Any decontamination of the Contractor's equipment prior to arrival at the site shall be at the expense of the Contractor. The Contractor is prohibited from decontaminating equipment on the Project that has not been thoroughly decontaminated prior to arrival.

The Contractor shall furnish labor, materials, tools, and equipment for decontamination of all equipment and supplies that are used to handle Controlled Materials. Decontamination shall be conducted at an area acceptable to the Engineer and shall be required prior to equipment and supplies leaving the Project and between stages of the work.

The Contractor shall use dry decontamination procedures. Residuals from dry decontamination activities shall be collected and managed as Controlled Materials. If the results from dry methods are unsatisfactory to the Engineer, the Contractor shall modify decontamination procedures as required.

The Contractor shall be responsible for the collection and treatment/recycling/disposal of any liquid and solid wastes that may be generated by its decontamination activities in accordance with applicable regulations.

Method of Measurement:

The work of "DISPOSAL OF CONTROLLED MATERIALS" will be measured for payment as the actual net weight in tons of material delivered to the TDRF. Such determinations shall be made by measuring each hauling vehicle on the certified permanent scales at the TDRF before

and after unloading and subtracting the weight of the empty vehicle from the weight of the loaded vehicle. Total weight will be the summation of weight bills issued by the facility specific to this Project.

Excess excavations made by the Contractor beyond the payment limits specified in Specification Sections 2.02, 2.03, 2.05, 2.06, or the Contract Special Provisions (as appropriate) will not be measured for payment and the Contractor assumes responsibility for all costs associated with the appropriate handling, management, and disposal of this material.

The disposal of excavated materials, originally anticipated to be Controlled Materials, but determined by characterization sampling not to contain concentrations of regulated chemicals (non-polluted or "clean" materials) will not be measured for payment under this Item but will be considered as surplus excavated materials and shall be handled in accordance with Article 1.04.05.

Any Controlled Materials which are reused within the Project limits will not be measured for payment under this Item.

Equipment decontamination, the collection of residuals, and the collection and disposal of liquids generated during equipment decontamination activities will not be measured separately for payment.

Any material processing required by the Contractor-selected disposal facility, including the proper disposal of all removed materials other than creosote treated wood, will not be measured for payment.

Basis of payment:

This work shall be paid for at the Contract unit price, which shall include transportation of Controlled Materials from the Project WSA to the TDRF(s); the preparation of manifests, bills of lading, and fees paid; and all equipment, materials, tools, and labor incidental to this work. **This unit price will be applicable to all of the listed TDRFs and will not change for the duration of the Project.**

This price shall also include equipment decontamination, the collection and handling of residuals generated during decontamination, and the collection and disposal of solids and liquids generated during equipment decontamination activities.

Payment for dust control activities shall be made under the appropriate Contract items.

Pay Item	Pay Unit
Disposal of Controlled Materials	ton

ITEM NO. 0202318A MANAGEMENT OF REUSABLE CONTROLLED MATERIAL

Description:

Work under this item shall include all materials, equipment, tools and labor required to load, transport from the TRSA, place, and compact reusable controlled materials in fill areas located within the Project limits. "Reusable controlled material" is defined as controlled material stockpiled at the TRSA and later reused as suitable backfill within the Project Limits.

Construction Methods:

Controlled material stored within the TRSA shall be loaded, transported, placed and compacted at fill areas located within the Project limits in accordance with the following conditions: (1) such soil is deemed to be structurally suitable for use as fill by the Engineer; (2) such soil is not placed below the water table; 3) the DEEP groundwater classification of the area where the soil is to be reused as fill does not preclude said reuse; and (4) such soil is not placed in an area subject to erosion.

Method of Measurement:

"Management of Reusable Controlled Material" will be measured for payment by the number of cubic yards of material loaded and transported from the WSA and placed at fill areas located within the Project limits in accordance with the Contract.

Basis of Payment:

"Management of Reusable Controlled Material" will be paid for at the Contract unit price, which shall include all materials, equipment, tools and labor necessary to load and transport reusable controlled materials from the TRSA to fill areas located within the Project limits and to place and compact the reusable material. This price shall include any decontamination of soil handling equipment, and the treatment/recycling/disposal of wastes generated in conjunction with such decontamination.

No separate payment will be made for consolidating previously-tested individual stockpiles that have been deemed reusable, but shall be considered incidental to the work.

The disposal of any reusable controlled material that fails to meet material testing requirements for the intended use in accordance with the Contract requirements, as well as any excess reusable material, will be paid under Item 0202315A, "Disposal of Controlled Material".

Pay Item	Pay Unit
Management of Reusable Controlled Materials	C.Y.

135-326 ADDENDUM NO. 1

ITEM NO. 0204213A - HANDLING CONTAMINATED GROUNDWATER

Description:

Under this Item, the Contractor shall collect, manage, treat, and dispose of contaminated groundwater generated during dewatering operations within the Project limits.

Contaminated groundwater is defined as "groundwater which has been generated from excavations within the Project Limits containing substances at concentrations that exceed the effluent limits for the DEEP General Permit for the Discharge of Groundwater Remediation Wastewater Directly to Surface Water". The presence of contaminants removable through control of settleable solids does not constitute contaminated groundwater. Groundwater contamination caused by the Contractor's activities or work practices is also not considered contaminated groundwater.

The contamination and groundwater depth at the time of the investigation is documented in the reports listed in the "Notice to Contractor – Environmental Investigations". Contaminants and depth to groundwater is provided for the Contractor's information and may be influenced by factors such as seasonal groundwater table changes, tidal changes, drought or flooding conditions, local withdrawals from the aquifer, local construction, etc. Additional information with regard to soil descriptions and groundwater observations may also be available if geotechnical investigations were conducted for the project. The Contractor shall contain contaminated groundwater and 1) treat it on-site prior to discharge to sanitary sewer; 2) treat it on-site prior to discharge to surface water; or 3) transport water to an off-site treatment/disposal facility.

This Item does not apply to the possible diversion of existing storm water flow around the construction site during Project activities. Diversion of existing storm water or surface flows shall be completed in accordance with the Contract and all applicable permits. This item also does not include process water or wastewater generated by the Contractor's work activities.

Construction Methods:

A. General

It is the Contractor's responsibility to determine the expected groundwater generation rate from construction activities, select the appropriate groundwater management method, and size its system capacity to meet those dewatering needs.

All equipment required as a part of this Item shall be installed in a location and manner acceptable to the Engineer and in accordance with the manufacturer's recommendations. Equipment shall be decontaminated prior to arrival at the Project, decontaminated prior to being moved to another area of the project, and then decontaminated before it leaves the

Project, at no additional cost to the State. Solids (soil or sediment) generated by on-site dewatering activities shall be brought to the Waste Stockpile Area (WSA) for testing and characterization by the Engineer.

The Contractor is responsible for operating and maintaining the equipment at all times when dewatering occurs. This includes providing appropriate supervision during evenings, weekends, and holidays. If the system is intended to operate unattended, a remote alarm system acceptable to the Engineer shall be installed to monitor critical system operating parameters and the Contractor shall be responsible for providing rapid emergency response during non-working hours in the event a system malfunction occurs. A list of names and phone numbers shall be displayed in the immediate vicinity of the system for emergency contacts.

The Contractor shall report releases from the groundwater treatment system due to overfilling or equipment/piping failure to the DEEP Spill Response Unit in accordance with RCSA 22a-450 and provide the Engineer with all information, including the DEEP case number. All costs related to spill response associated with the Contractor's on-site containment or treatment system will be the responsibility of the Contractor.

The Contractor shall collect all samples related to permit compliance in the presence of the Engineer. The Contractor shall provide informational copies of all groundwater analytical results and discharge monitoring reports to the Engineer as they are generated.

The Contractor shall operate the dewatering equipment at a rate that removes the groundwater that naturally infiltrates the excavation. The Contractor shall not cause a hydraulic gradient that draws groundwater into the excavation at an excessive rate. Additional treatment required due to the mobilization of off-site contaminants caused by the Contractor dewatering at an excessive rate will be the responsibility of the Contractor.

Additional treatment related to the Contractor's work activities (i.e. treatment or increased charges due to changes in pH or introduction of different contaminants into the groundwater) and management and disposal of excess water related to the Contractor's process water or waste water will not be included under this item but will be considered a part of the Contractor's cost for the item under which the work is being performed.

B. Groundwater Management Methods

The Contractor shall use one or more of the following methods for the management and disposal of contaminated groundwater. Based on project specifics and site constraints, the Contractor may choose to use more than one of the following methods on a single project. All methods may not be possible at the site due to sanitary sewer or permitting restrictions.

1. On-Site Treatment System with Discharge to Sanitary Sewer

a. Contractor Submittals

At least 14 days prior to any submittal to the Publicly Owned Treatment Works (POTW) or DEEP, the Contractor shall submit the treatment system design, which has been sealed by a Professional Engineer licensed in the State of Connecticut to the Engineer for review and comment. Equipment shall prevent sediments and solids, as well as contaminants in excess of the permit allowable effluent concentrations, from entering the sanitary sewer. This submittal shall include a schematic or diagram that shows all treatment system equipment, well point locations, pump set-ups in excavations, sedimentation control methods, system location, method of conveyance, flow rates, pipe sizes, valve locations, sampling ports, discharge locations, electrical power connection, etc.

The Contractor shall submit the manufacturer's data sheets, assembly details and performance data on all treatment equipment. If dewatering equipment is to remain on site between October 15 and April 15, the Contractor shall include its method to prevent the treatment system equipment from freezing (heat tape, immersion heaters, etc.).

The Contractor shall detail its method to collect and contain water in its excavations. The Contractor shall also describe in detail its methods for limiting the quantity of water entering the excavation, including shoring, location of well points, limiting excavation size, preventing entry of surface water into the excavation, etc. The Contractor shall also include its assumptions and flow rate calculations related to the sizing of the system.

It is the Contractor's responsibility to design and properly size the system to accommodate the anticipated contaminants and dewatering rates based on its construction activities, POTW limitations, and permit requirements. The Contractor is alerted that construction activities may be limited based on permit restrictions or POTW limitations.

No claim for delay or request for additional time will be considered based upon the Contractor's failure to accommodate the review process.

b. Permits

Groundwater generated by construction activities within the Project limits shall be appropriately treated and discharged to the sanitary sewer system within Project limits. Management and discharge of contaminated groundwater shall be accomplished in accordance with a DEEP General Permit and POTW requirements. The Contractor shall be responsible for registering under the General Permit, any other necessary State or local permits, and all associated fees.

The DEEP General Permit for the Discharge of Groundwater Remediation Wastewater to Sanitary Sewer is available at www.ct.gov/deep. The Contractor shall submit the most current permit registration form to the DEEP. A minimum lead-time of six (6) weeks can

be expected to process and submit the registration, in addition to coordination time with the POTW. **No claim for delay or request for additional time will be considered based upon the Contractor's failure to accommodate the permitting process.** The Contractor shall not submit the permit registration to the DEEP prior to the Engineer's review of and comment on the treatment system.

The Contractor shall submit a copy of the DEEP permit certificate of registration to the Engineer prior to initiating any discharge.

All testing required by the general permit shall be conducted by a laboratory certified by the Connecticut Department of Public Health (DPH) for the method specified in the permit. The Contractor shall submit copies of the analytical results to the all parties specified in the permit terms and conditions and to the Engineer.

No claim for delay or request for additional time will be considered based upon the Contractor's failure to design a system to meet this performance specification. It is the Contractor's responsibility to properly size the treatment system and temporary containment tanks based on its anticipated flow rates from construction activities and to determine the level of treatment required to meet permit discharge limits.

c. Treatment System Operation

The Contractor shall ensure that all personnel involved in the groundwater treatment operations understand the terms of the General Permit. In the event of a conflict between the requirements of the Contract and the permit, the more stringent will apply.

The Contractor shall not commence work activities below the groundwater table within the Project Limits until such time as:

i. the temporary groundwater treatment system design is reviewed by the Engineer and comments are adequately addressed,

ii. the system is installed in accordance with the accepted design and is completely operational, and

iii. a copy of the Contractor's permit certificate of registration has been submitted to the Engineer.

The Contractor shall make any sanitary sewer tie-in modifications necessary to accommodate the treatment unit only after obtaining approval from the Engineer and the POTW.

The Contractor shall take all meter readings required by the permit and forward them to the appropriate parties.

The Contractor shall collect all samples related to permit compliance in the presence of the Engineer and shall submit copies of the analytical results and discharge monitoring reports to the appropriate agency(ies) as required by the General Permit terms and conditions. The Contractor shall provide informational copies of all analytical results and discharge monitoring reports to the Engineer as they are generated. In the event of an exceedance, the Contractor shall immediately comply with the "***Duty to Correct, Record, and Report Violations***" section of the General Permit. The Contractor shall provide the Engineer a copy of the required DEEP reporting and then document its review of the treatment system and all actions taken to correct the exceedance in writing to the Engineer within 48 hours of receiving laboratory data documenting the exceedance.

If the discharge must be suspended due to an effluent violation, the Contractor shall only restart the discharge after obtaining all necessary approvals from the DEEP/POTW and in full compliance with the General Permit and any amendments imposed thereto.

No claim for delay, request for additional time, or request for additional design/redesign costs for the system will be considered based upon the Contractor's failure to design/redesign a system to meet this performance specification.

2. On-Site Treatment System with Discharge to Surface Water

   a. Contractor Submittals

At least 14 days prior to <u>any</u> submittal to the DEEP, the Contractor shall submit the treatment system design, which has been sealed by a Professional Engineer licensed in the State of Connecticut, to the Engineer for review and comment. Equipment shall prevent sediments and solids, as well as contaminants in excess of the permit allowable effluent concentrations, from discharging. This submittal shall include a schematic or diagram that shows all treatment system equipment, well point locations, pump set-ups in excavations, sedimentation control methods, system location, method of conveyance, flow rates, pipe sizes, valve locations, sampling ports, discharge locations, electrical power connection, etc.

The Contractor shall submit the manufacturer's data sheets, assembly details and performance data on all treatment equipment. If dewatering equipment is to remain on site between October 15 and April 15, the Contractor shall include its method to prevent the treatment system equipment from freezing (heat tape, immersion heaters, etc.).

The Contractor shall detail its method to collect and contain water in its excavations. The Contractor shall also describe in detail its methods for limiting the quantity of water entering the excavation, including shoring, location of well points, limiting excavation size, preventing entry of surface water into the excavation, etc. The Contractor shall also include its assumptions and flow rate calculations related to the sizing of the system.

It is the Contractor's responsibility to design and properly size the system to accommodate the anticipated contaminants and dewatering rates based on its construction activities and permit requirements. The Contractor is alerted that construction activities may be limited based on permit restrictions.

No claim for delay or request for additional time will be considered based upon the Contractor's failure to accommodate the review process.

b. Permits

Groundwater generated by construction activities within the Project limits shall be appropriately treated and discharged to surface water within Project limits. Management and discharge of contaminated groundwater shall be accomplished in accordance with a DEEP General Permit. The Contractor shall be responsible for registering under the General Permit and all associated fees.

The DEEP General Permit for the Discharge of Groundwater Remediation Wastewater Directly to Surface Water is available at www.ct.gov/deep. The Contractor shall submit the most current permit registration form to the DEEP. A minimum lead-time of six (6) weeks can be expected to process and submit the registration. **No claim for delay or request for additional time will be considered based upon the Contractor's failure to accommodate the permitting process.** The Contractor shall not submit the permit registration to the DEEP prior to review of and comment on the treatment system by the Engineer.

The Contractor shall submit a copy of the DEEP permit certificate of registration to the Engineer prior to initiating any discharge.

All testing required by the General Permit shall be conducted by a laboratory certified by the Connecticut Department of Public Health (DPH) for the method specified in the permit. The Contractor shall submit copies of the analytical results to the all parties specified in the permit terms and conditions and to the Engineer.

No claim for delay or request for additional time will be considered based upon the Contractor's failure to design a system to meet this performance specification. It is the Contractor's responsibility to properly size the treatment system and temporary containment tanks based on its anticipated flow rates from construction activities and to determine the level of treatment required to meet permit discharge limits.

For sites where the receiving water body does not qualify the site for registration under the DEEP General Permit for the Discharge of Groundwater Remediation Wastewater Directly to Surface Water and the discharge is anticipated to continue for 30 days or less, the Contractor may qualify for a DEEP Temporary Authorization (TA) to discharge to surface water. The Contractor will be bound to the terms and conditions of the TA the same as if it were a permit. If the Contractor applies for, and receives, a TA from the

DEEP, all other requirements of this specification will apply, except that where the specification refers to a permit, the TA will be substituted.

c. Treatment System Operation

The Contractor shall ensure that all personnel involved in the groundwater treatment operations understand the terms of the General Permit. In the event of a conflict between the requirements of this Item and the permit, the more stringent will apply.

The Contractor shall not commence work activities below the groundwater table within the Project limits until such time as:

i. the temporary groundwater treatment system design is reviewed by the Engineer and comments are adequately addressed,

ii. the system is installed in accordance with the accepted design and is completely operational, and

iii. a copy of the Contractor's permit certificate of registration has been submitted to the Engineer.

The Contractor shall take all meter readings required by the permit and forward them to the appropriate parties.

The Contractor shall submit copies of the analytical results and discharge monitoring reports to the appropriate agency(ies) as required by the General Permit terms and conditions. The Contractor shall provide informational copies of all analytical results and discharge monitoring reports to the Engineer as they are generated. In the event of an exceedance, the Contractor shall immediately comply with the "***Duty to Correct, Record, and Report Violations***" section of the General Permit. The Contractor shall provide the Engineer a copy of the required DEEP reporting and then document its review of the treatment system and all actions taken to correct the exceedance in writing to the Engineer within 48 hours of receiving laboratory data documenting the exceedance.

If the discharge must be suspended due to an effluent violation, the Contractor shall only restart the discharge after obtaining all necessary approvals from the DEEP and in full compliance with the General Permit and any amendments imposed thereto.

No claim for delay, request for additional time, or request for additional design/redesign costs for the system will be considered based upon the Contractor's failure to design/redesign a system to meet this performance specification.

3. Off-Site Treatment and Disposal

At least 14 days prior to any work involving the dewatering of contaminated groundwater, the Contractor shall submit for the Engineer's review and comment its proposed system to collect and contain the contaminated groundwater. This submittal shall include schematics of proposed pump set-ups in excavations; sedimentation control measures; probable location of temporary containment tanks; schematics of proposed method to transfer liquids from temporary containment tanks to transport vehicles; schematic of proposed method to off-load liquids at the off-site permitted treatment/disposal facility; documentation that transport vehicles hold a "Waste Transportation Permit" for contaminated liquids per CGS 22a-454; and the name of the disposal facility from the following list of Department-approved and DEP-permitted treatment facilities for State-regulated liquid disposal:

Clean Harbors of CT
51 Broderick Rd.
Bristol, CT 06010
(860)224-7600

Tradebe Environmental Services, LLC
50 Cross St.
Bridgeport, CT 06610
(203)238-6754

Tradebe Environmental Services, LLC
Gracey Avenue
Meriden, CT 06450
(203)238-6754

All testing required to meet facility acceptance parameters shall be conducted by the Contractor in the presence of the Engineer. The Contractor is hereby notified that laboratory turnaround time is expected to be fifteen (15) working days. The Contractor shall provide informational copies of the laboratory results to the Engineer. **No delay claim will be considered based upon the Contractor's failure to accommodate the laboratory turnaround time as identified above or to design its system with sufficient holding capacity to accommodate this requirement.**

The Contractor shall obtain and complete all paperwork necessary to arrange for disposal of the contaminated groundwater (such as disposal facility waste profile sheets). It is solely the Contractor's responsibility to coordinate the disposal with its selected facility. Upon receipt of the final approval from the facility, the Contractor shall arrange for the loading, transport and disposal in accordance with all Federal and State regulations. **No claim will be considered based on the failure of the Contractor's selected disposal facility(s) to meet the Contractor's production rate or for the Contractor's failure to select sufficient facilities to meet its production rate.**

The Contractor will be responsible for the cleaning of the water treatment system and the disposal of the entire shipment as the Hazardous Waste Generator for water that undergoes a change in waste classification due to the Contractor's work activities or processes (i.e. contaminated groundwater being classified characteristically hazardous for pH due to grouting operations).

Method of Measurement:

Within fourteen (14) calendar days after addressing the Engineer's comments on the proposed system(s) for Handling Contaminated Groundwater, the Contractor shall submit to the Engineer for approval a cost breakdown of its lump sum bid price. The submission must include substantiation showing that the cost breakdown submitted is reasonable based on the Contractor's lump sum bid. The cost breakdown shall be in accordance with the following payment schedule:

a. The cost to prepare the design for proposed system(s) for Handling Contaminated Groundwater, including preparation and submittal of all permit registration applications, in accordance with these specifications. Design costs shall not exceed 10% of the total cost of the item.

b. The procurement and installation cost for the proposed system(s) for Handling Contaminated Groundwater in accordance with these specifications. Procurement and installation costs shall not exceed 20% of the total cost of the item.

c. Equipment decontamination and demobilization and restoration of site. Decontamination and demobilization costs shall not exceed 10% of the total cost of the item.

d. The remaining costs for operation, monitoring, permit compliance, sampling and analysis, disposal costs, and maintenance of the proposed system(s), including cleaning of the temporary containment tanks of settled solids, replacement of carbon filters, transporting of solids to the WSA, and transportation of the contaminated dewatering wastewater to an off-site permitted treatment/disposal facility in accordance with these specifications shall be divided evenly throughout the duration of the project work involving contaminated groundwater at the discretion of the Engineer.

Increased costs directly related to the Contractor's operation (i.e. treatment or increased charges due to changes in pH or additional contaminants, treatment and disposal of excess water related to process or waste water, etc.) will not be paid under this item but will be considered a part of the Contractor's cost for the item under which the work is being performed.

Basis of Payment:

This work will be paid for at the Contract lump sum price for "Handling Contaminated Groundwater" which price shall include: all work and materials involved with handling contaminated groundwater from within the Project Limits and shall include all equipment, materials, tools and labor incidental to removal of the contaminated groundwater from the

excavation; conveying contaminated groundwater from the dewatering point to the temporary containment tanks and groundwater treatment facility; treatment; conveying discharge of contaminated wastewater to a sanitary sewer, surface water or off-site disposal at a permitted treatment/disposal facility (including transportation); disposal or recycling of used treatment media (i.e. bag filters and spent carbon); permit applications; disposal and permit fees; POTW fees; electrical costs; sampling and documentation costs; laboratory costs; design and monitoring; mobilization, operation, and maintenance of the system; site work; all required equipment decontamination; transportation of solids to the WSAs; and equipment demobilization.

Sedimentation control associated with work under this Item will be paid under the appropriate items of the Contract.

Pay Item	Pay Unit
Handling Contaminated Groundwater	Lump Sum

ITEM NO. 1204247A - REVISION OF LEGEND

12.04.01–Description:
This item shall consist of revising sign legends, which shall include furnishing and installing sign face sheet aluminum sign panels as required to modify the legends of the signs as shown on the following sign details.

12.04.02–Materials:
Materials for "Sheet Aluminum" sign panels shall conform to the requirements of Article 12.08.02.

12.04.03–Construction Methods:
The following sign locations shall be revised as shown on the following sign details:

Sign Location	Material Type for Overlay Panel or New Panel
95_135_020_A	Sheet Aluminum (Sign No. TP1375)
95_135_040_A	Sheet Aluminum (Sign No. TP1375)
95_135_080_A	Sheet Aluminum (Sign No. TP1375)
95_135_110_A	Sheet Aluminum (Sign No. TP1375)

Construction methods for "Sheet Aluminum" sign panels shall conform to the requirements of Article 12.08.03 and as supplemented as follows.

The Contractor shall revise the signs as shown on the following sign details and as directed by the Engineer.

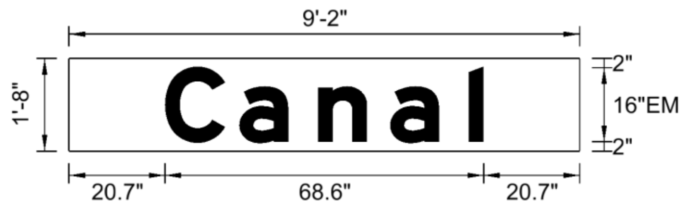
Existing demountable copy "Atlantic Street" shall be removed prior to fastening the sign panel at each of the sign locations.
The sheet aluminum sign panels shall be fastened to the existing signs with aluminum rivets. The aluminum rivets shall be of the pull through type and of the size and number designated by the sign panel manufacturer and shall be approved by the Engineer. The sign panels shall be installed at the locations shown on the attached sign details.

12.04.04–Method of Measurement:
This work will be measured for payment by the number of signs that are revised and accepted.

12.04.05–Basis of Payment:
This item will be paid for at the contract unit price for "Revision of Legend" complete, in place, which price shall include new hardware, removing and disposing of unnecessary materials, and all equipment, material, tools and labor incidental thereto. This price shall also include removing, loading, transporting, and unloading of signs and all equipment, material, tools and labor incidental thereto.

Pay Item	Pay Unit
Revision of Legend	ea.

SIGN DETAIL
1:35



SIGN NUMBER	TP-1375
SIGN PANEL	15.27
EXIT CROWN	
TOTAL (Sq.fT.)	15.27
BDR INSET/WIDTH	0" / 0"
CORNER RADIUS	0"
BACKGROUND	TYPE: IV
	COLOR: Green
LEGEND/BORDER	TYPE: IV
	COLOR: White/

SYMBOL	ROT	X	Y	WID	HT

REV'D /

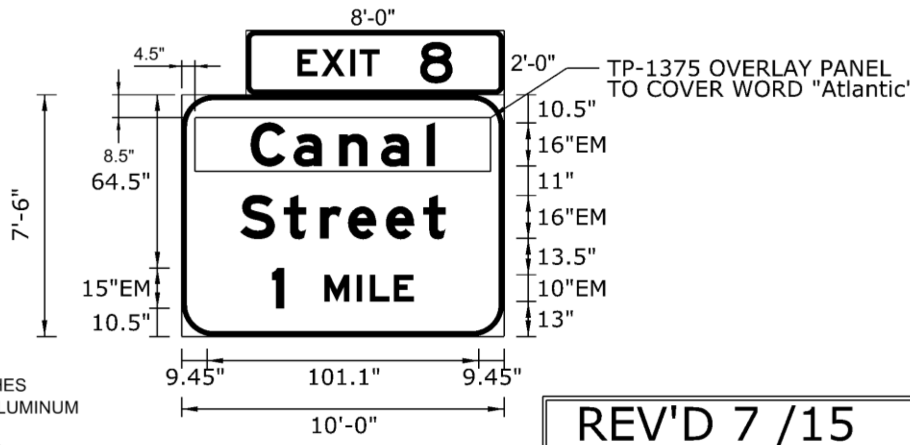
DIMENSIONS ARE IN INCHES
MATERIAL : .040 THK.SHEET ALUMINUM
OVERLAY PANEL
SIGN SUPPORT NO. N/A
LOCATION :ROUTE I-95 (VARIOUS LOCATIONS)
PROJECT NO. 135-301
ENGINEER : J.A.M. DESIGNED BY : J.M.F. CHECKED BY :______

PLOTTED : 7/23/2015

LETTER POSITIONS (X)

	C	a	n	a	l		LENGTH	SERIES/SIZE
20.7	16	17	15.5	17	3.2	20.7	68.6	EM 2000 16/12

SIGN DETAIL
1:60



SIGN NUMBER	95-135-020-A
SIGN PANEL	75.0
EXIT CROWN	16.0
TOTAL (Sq.fT.)	91.0
BDR INSET/WIDTH	0" / 2"
CORNER RADIUS	12"
BACKGROUND	TYPE: IV
	COLOR: Green
LEGEND/BORDER	TYPE: IV
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT

DIMENSIONS ARE IN INCHES
MATERIAL : EXTRUDED ALUMINUM
OVERHEAD MOUNTED
SIGN SUPPORT NO. 20016
LOCATION : STAMFORD I-95 N.B. MILEAGE : 6.53
PROJECT NO. 173-350
ENGINEER : J.A.G. DESIGNED BY : J.M.F. CHECKED BY :______

REV'D 7 /15
ADDED OVERLAY PANEL TP-1375
IN PROJECT 135-326.

PLOTTED : 8/11/2015

LETTER POSITIONS (X)

										LENGTH	SERIES/SIZE
	A	t	l	a	n	t	i	c			EM 2000
9.5	18.2	12.9	7.7	16.3	14.9	12.9	7.7	10.6	9.5	101.1	16/12
	S	t	r	e	e	t					EM 2000
21.8	16.3	13.4	10.4	14.1	13.9	8.3	21.8			76.5	16/12
	1		M	I	L	E					EM 2000
33.6	4.5	15	12.1	4.8	9	7.4	33.6			52.8	15,10

135-326

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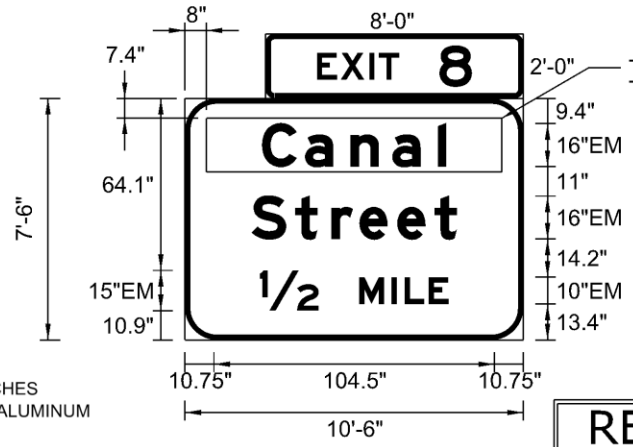
ADDENDUM #2 2017A

Rev. Date 8-11-15

SIGN DETAIL
1:60



DIMENSIONS ARE IN INCHES
MATERIAL : EXTRUDED ALUMINUM
BRIDGE MOUNTED
SIGN SUPPORT NO. 20017A
LOCATION : STAMFORD I-95 N.B. MILEAGE : 6.88
PROJECT NO. 173-350
ENGINEER : J.A.G. DESIGNED BY : J.M.F. CHECKED BY :_____

REV'D 7 /15
INSTALLED OVERLAY PANEL TP-1375
IN PROJECT 135-326.

SIGN NUMBER	95-135-040-A
SIGN PANEL	78.75
EXIT CROWN	16.0
TOTAL (Sq.fT.)	94.75
BDR INSET/WIDTH	0" / 2"
CORNER RADIUS	12"
BACKGROUND	TYPE: IV
	COLOR: Green
LEGEND/BORDER	TYPE: IV
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT

PLOTTED : 8/11/2015

LETTER POSITIONS (X)

																				LENGTH	SERIES/SIZE
	A	t	l	a	n	t	i	c													EM 2000
10.8	18.4	13.4	8.2	17	15.4	13.4	8.2	10.6	10.8											104.5	16/12
	S	t	r	e	e	t															EM 2000
24.8	16.3	13.4	10.4	14.1	13.9	8.3	24.8													76.5	16/12
	1/2		M	I	L	E															EM 2000
27.9	22	15	12.1	4.8	9	7.4	27.8													70.3	15,10

135-326

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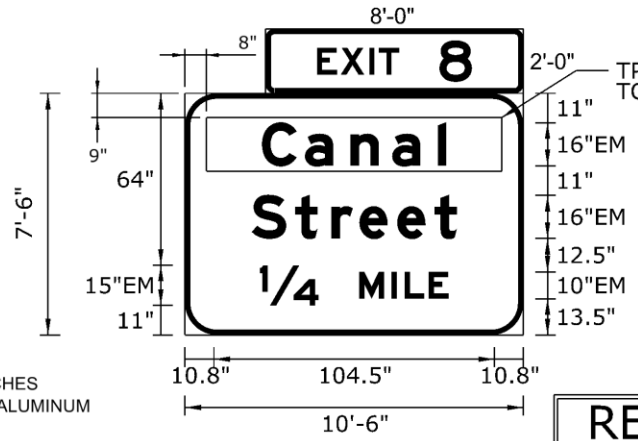
ADDENDUM #2 2017A

Rev. Date 8-11-15

SIGN DETAIL
1:60



SIGN NUMBER	95-135-080-A
SIGN PANEL	78.75
EXIT CROWN	16.0
TOTAL (Sq.fT.)	94.75
BDR INSET/WIDTH	0" / 2"
CORNER RADIUS	12"
BACKGROUND	TYPE: IV
	COLOR: Green
LEGEND/BORDER	TYPE: IV
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT

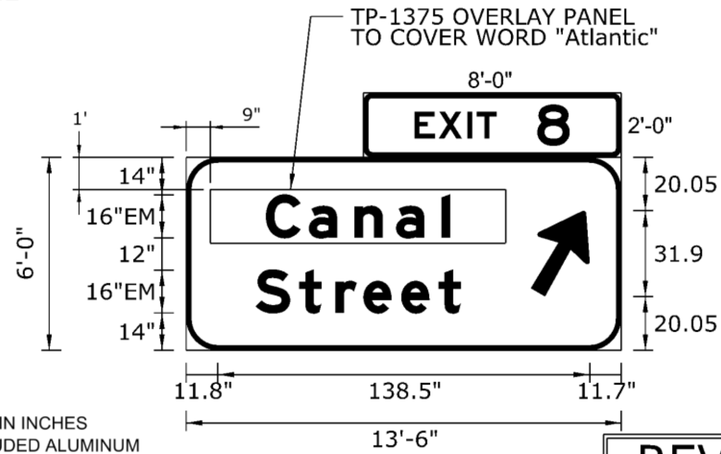
DIMENSIONS ARE IN INCHES
MATERIAL : EXTRUDED ALUMINUM
OVERHEAD MOUNTED
SIGN SUPPORT NO. 20018
LOCATION : STAMFORD I-95 N.B. MILEAGE : 7.15
PROJECT NO. 173-350
ENGINEER : J.A.G. DESIGNED BY : J.M.F. CHECKED BY :_____

REV'D 7 /15
ADDED OVERLAY PANEL TP-1375
IN PROJECT 135-326.

PLOTTED : 8/11/2015

LETTER POSITIONS (X)																				LENGTH	SERIES/SIZE
	A	t	l	a	n	t	i	c													EM 2000
10.8	18.4	13.4	8.2	17	15.4	13.4	8.2	10.6	10.8											104.5	16/12
	S	t	r	e	e	t															EM 2000
24.8	16.3	13.4	10.4	14.1	13.9	8.3	24.8													76.5	16/12
	1/4		M	I	L	E															EM 2000
27.9	22	15	12.1	4.8	9	7.4	27.8													70.3	15,10

SIGN DETAIL
1:60



SIGN NUMBER	95-135-110-A
SIGN PANEL	81.0
EXIT CROWN	16.0
TOTAL (Sq.fT.)	97.0
BDR INSET/WIDTH	0" / 2"
CORNER RADIUS	12"
BACKGROUND	TYPE: IV
	COLOR: Green
LEGEND/BORDER	TYPE: IV
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
ARMED	60	128.3	20.1	22.1	35

DIMENSIONS ARE IN INCHES
MATERIAL : EXTRUDED ALUMINUM
CANTILEVER MOUNTED
SIGN SUPPORT NO. 20019
LOCATION : STAMFORD I-95 N.B. MILEAGE : 7.40
PROJECT NO. 173-350
ENGINEER : J.A.G. DESIGNED BY : J.M.F. CHECKED BY :______

REV'D 7 /15
INSTALLED OVERLAY PANEL TP-1375
IN PROJECT 135-326.

PLOTTED : 8/11/2015

LETTER POSITIONS (X)																					LENGTH	SERIES/SIZE
	A	t	l	a	n	t	i	c														EM 2000
11.8	18.4	13.4	8.2	17	15.4	13.4	8.2	10.6	45.7												104.5	16/12
	S	t	r	e	e	t																EM 2000
25.8	16.3	13.4	10.4	14.1	13.9	8.3	59.7														76.5	16/12

NOTICE TO CONTRACTOR - ENVIRONMENTAL INVESTIGATIONS

Environmental site investigations have been conducted that involved the sampling and laboratory analysis of soil and groundwater collected from various locations and depths within the Project limits. The results of these investigations indicated the presence of total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), RCRA-8 metals, poly-chlorinated biphenyls (PCBs), and pesticides in soils within proposed construction areas at concentrations above the Connecticut Department of Energy and Environmental Protection (CT DEEP) Remediation Standard Regulations (RSRs). Based on these findings, an Area of Environmental Concern (AOEC) and four (4) PCB AOECs have been identified within the proposed Project limits. Additionally, the reminder of the Project Area is considered a Low-Level Area of Environmental Concern (LLAOEC). Groundwater within the Project limits is also impacted with VOCs and SVOCs above applicable RSR numeric criteria. (It is noted that groundwater was limited in discovery during the investigation of overburden soils). The presence of the compounds at these concentrations will require material-handling measures for soils and groundwater beyond those required for normal construction operations and will be restricted to the methods described herein.

The Contractor is hereby notified that controlled materials requiring special management or disposal procedures will be encountered during various construction activities conducted within the Project limits. Therefore, the Contractor will be required to implement appropriate health and safety measures for all construction activities to be performed within the AOEC/PCB AOEC/LLAOEC locations. These measures shall include, but are not limited to, air monitoring, engineering controls, personal protective equipment and decontamination, equipment decontamination and personnel training. WORKER HEALTH AND SAFETY PROTOCOLS WHICH ADDRESS POTENTIAL AND/OR ACTUAL RISK OF EXPOSURE TO SITE SPECIFIC HAZARDS IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

The Connecticut Department of Transportation, as Generator, will provide an authorized representative to sign all manifests and waste profile documentation required by disposal facilities for disposal of controlled materials and contaminated groundwater.

The Sections which shall be reviewed by the Contractor include, but are not limited to, the following:

- Item No. 0101000A – Environmental Health and Safety
- Item No. 0101117A – Controlled Materials Handling
- Item No. 0101128A – Securing, Construction, and Dismantling of a Waste Stockpile and Treatment Area
- Item No. 0101175A – PCB Waste Handling

- Item No. 0101176A – Disposal of PCB Waste
- Item No. 0202315A – Disposal of Controlled Material
- Item No. 0202318A – Management of Reusable Controlled Material
- Item No. 0204213A – Handling Contaminated Groundwater

The Contractor is alerted to the fact that a Department environmental consultant will be on site for excavation and dewatering activities within the AOEC/PCB AOEC/LLAOEC locations to collect soil and groundwater samples (if necessary), and to observe site conditions for the State. **The waste stockpile area (WSA) indicated on the plans is to be used exclusively for temporary stockpiling of excavated materials from within the project AOEC/ surplus excavated material from LLAOEC locations for determination of disposal classification. Soils from PCB AOECs will not be staged in the WSA unless already containerized and approved by the Engineer.**

All suitable material excavated from the AOEC may be reused within the AOEC from which it was excavated as fill/backfill, in accordance with the following conditions: (1) such soil is deemed to be structurally suitable as fill by the Engineer; (2) such soil is not placed below the water table; (3) the CT DEEP groundwater classification of the area where the soil is to be reused as fill does not preclude said use; and (4) such soil is not placed in an area subject to erosion. Soils within the LLAOECs are to be reused on site prior to the use of other soils and/or fill such that no excess soils requiring off-site disposal are generated from the LLAOEC locations. Soils excavated from PCB AOECs are slated for disposal and are not permitted for reuse. Controlled material deemed acceptable for reuse will be transported to the designated temporary reuse stockpile area (TRSA) for staging until project scheduling dictates its placement as backfill.

Information pertaining to the results of the environmental investigations discussed can be found in the documents listed below. These documents shall be available for review at the Office of Contracts, 2800 Berlin Turnpike, Newington, Connecticut.

- Task 210: Subsurface Site Investigation – Reconstruction of Metro-North Railroad Bridge over Atlantic Street, Stamford, CT; prepared by HRP Associates, Inc., dated January 6, 2015.